



OSPREY COMBAT AIRCRAFT • 103



# F9F PANTHER UNITS OF THE KOREAN WAR

**Warren Thompson**



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# CONTENTS

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## CHAPTER ONE

### **US NAVY PANTHERS STRIKE EARLY 6**

---

## CHAPTER TWO

### **THE WAR DRAGS ON 18**

---

## CHAPTER THREE

### **MORE MISSIONS AND MORE MiGS 50**

---

## CHAPTER FOUR

### **INTERDICTION, RESCAP, CAS AND MORE MiGS 60**

---

## CHAPTER FIVE

### **MARINE PANTHERS ENTER THE WAR 72**

---

### **APPENDICES 87**

COLOUR PLATES COMMENTARY 89

INDEX 95

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# US NAVY PANTHERS STRIKE EARLY

The United States' brief period of post-World War 2 peace and economic recovery was abruptly shattered on the morning of 25 June 1950 when troops from the communist state of North Korea crossed the 38th Parallel and invaded their neighbour to the south. American military power in the Far East had by then been reduced to a token force that was ill equipped to oppose the Soviet-backed North Korean military. The United States Air Force (USAF), which had been in the process of moving to an all-jet force in the region, responded immediately with what it had in Japan and Okinawa.

The biggest problem for the USAF, however, was that its F-80 Shooting Star fighter-bombers lacked the range to hit North Korean targets, and their loiter time over enemy columns already in South Korea was severely restricted. This pointed to the need for the US Navy to bolster American air power in the region by deploying its aircraft carriers to the region. However, the only vessel in the Far East was more than a thousand miles from Korea. The USS *Valley Forge* (CV-45) was anchored in Hong Kong harbour, with its crew enjoying rest and recuperation ashore. Within hours of the communist invasion of South Korea all personnel had been recalled to the carrier, which duly weighed anchor and steamed for Subic Bay, in the Philippines, in order to make the ship ready for combat.

Following a hasty turnaround at Subic Bay, CV-45 arrived off the west coast of North Korea on 1 July. Here, it was joined by the British carrier HMS *Triumph* within Task Force (TF) 77. *Valley Forge* was home to Carrier Air Group (CVG) 5, and its two squadrons (VF-51 and VF-52) of F9F-3s would be the first US Navy units to see combat in jet fighters.

On the afternoon of 2 July CVG-5's mission planners were tasked with mounting a major strike on the main airfields around the North Korean capital, Pyongyang. The operation was to be carried out the next morning, starting with a perfectly timed launch that would see the propeller-driven types (F4U-4B Corsairs and AD-2/4Q Skyraiders) taking off first, followed by the appreciably faster F9F-3 Panthers. North Korean fighters had been active over Kimp'o airfield a week earlier, and

**USS *Valley Forge* (CV-45) was the first American carrier to enter the Korean War, with its two F9F-3 squadrons under the control of CVG-5. The Panther shown here was operated by VF-51. Many of the squadron's pilots would encounter North Korean propeller-driven aircraft during the first few weeks of the war, and the US Navy's first aerial kills were scored on 3 July 1950 by two VF-51 pilots (Frank Jones)**





**F9F-2Bs of VF-112 are readied on the flightdeck of *Philippine Sea* in September 1950. VF-112 spent eight months in combat on its first cruise (US Navy)**

according to intelligence personnel in TF 77 it was likely that there would be many more over Pyongyang than there had been on 27 June, when USAF F-82 Twin Mustangs and F-80s had last encountered them.

VF-51 would make Naval Aviation history on the morning of 3 July, as it became the first US Navy jet squadron to fly a combat mission. And during the course of that mission one of its pilots would claim the first aerial victory for a US Navy jet.

TF 77's intelligence personnel had indeed been right when they predicted that the North Korean People's Air Force (NKPAF) would

probably be airborne at the time of the attack, as several Soviet-built Yak-9s were in the air over Pyongyang when the Panthers arrived in the target area. The enemy pilots had no idea what they were in for, however. In fact most of them had probably never seen a jet before! Two Yak-9s subsequently fell to the guns of VF-51 pilots. One of the successful Naval Aviators was Lt(jg) Leonard H Plog, who recalled;

'I was one of several Panther pilots who took off from the *Valley Forge* at 0600 hrs. We were part of a large strike force that included two squadrons of F4U-4B Corsairs and a squadron of AD-4 Skyraiders. Our job was to keep any airborne enemy fighters away from the bombers. We arrived at the target before the strike force, and our main priority was to destroy any enemy aircraft parked on the airfield. Just as we commenced our strafing runs one of our pilots reported a Yak-9 taking off, and evidently a couple of others had also just gotten airborne.

'My wingman and I broke off from our strafing run to go after the Yak that had just taken off. As I lined up behind it, out of the corner of my eye I saw another one coming straight at me. He evidently misjudged the speed of my Panther because he missed. Ens Eldon Brown saw a Yak coming in on another element of F9Fs. This consisted of our air group commander, Cdr Peter Lanham, and his wingman, Lt Bill Gortney. He closed on it quickly and blew the Yak apart with his 20 mm cannon. This allowed me to re-focus on my Yak. I lined him up and fired a burst. A split second later I saw his right wing disintegrate. Ens Brown and I had shot down two enemy prop-type fighters in a short span of time.

'Our Corsairs and Skyraiders had achieved excellent results while working the airfield over. We then returned to our carrier with no losses. That afternoon we launched another strike against the same airfield, but there were very few targets left untouched after the morning attack. Anti-aircraft fire was minimal on both strikes.'

Soon after the initial strikes, both *Valley Forge* and *Triumph* were ordered south for a good reason. US military leaders were uncertain about North Korean and Chinese intentions, and it was feared that the invasion



of South Korea might have been a diversion to enable communist China to launch an amphibious attack on nationalist Chinese Taiwan (Formosa). When it became obvious that this was not in fact the case, both carriers rejoined the war to make continuous attacks on targets north of the 38th Parallel. This put VF-51's F9F-3s back in the thick of it.

The second aircraft carrier to enter the war was USS *Philippine Sea* (CV-47), with CVG-11 embarked. When the conflict began the ship was moored in its homeport of San Diego, California. Within days it was on its way to the Far East, sailing for Hawaii on 5 July. By 5 August the carrier was off the coast of South Korea, ready for combat operations. Upon its arrival in-theatre the vessel was designated flagship of TF 77. CVG-11 also boasted two squadrons (VF-111 and VF-112) of F9F-2 Panthers, and these units would make a major contribution to the war effort. When the carrier reached the Sea of Japan the situation was desperate on the Korean Peninsula, as UN forces had been boxed into a small area to the southeast of the country known as the Pusan Perimeter. CV-47 would remain on station until mid-March 1951, which meant that its crew had to endure a harsh Korean winter.

Upon joining TF 77, VF-111 and VF-112 were ordered to attack roads leading to the Pusan area, while CVG-11's Corsairs and Skyraiders rained tons of bombs on the enemy's forward positions. During this period aircraft from *Philippine Sea* struck targets from Seoul up to Wonsan. Ens Allen 'Boot' Hill, a VF-112 Panther pilot, recalls a memorable mission he flew on 26 August when the North Koreans were close to pushing UN forces into the sea;

'We were working approximately ten kilometres north of Pohang. At the beginning of a routine road and rail reconnaissance hop, a Marine airborne forward air controller [FAC] saw us and contacted our CO, who was flying lead. A Marine company was engaging a numerically superior North Korean unit and was on the verge of being overrun. The enemy troops literally covered half of the hill as they approached the ridgeline. They were clearly visible to all of us, so there was no doubt about who was friendly and who wasn't. Our Panthers were loaded with 5-in HVARs [High Velocity Aircraft Rockets] and 20 mm ammunition [both high-explosive incendiary and armour-piercing rounds].

**F9F-2B BuNo 123443 from VF-112 floats on the water after crashing shortly after being launched from *Philippine Sea* off Mokpo-Kwang-Ju on 7 August 1950. Its pilot, Lt Cdr Ralph Weymouth (CO of VF-112), can be seen standing in the cockpit of his aeroplane awaiting rescue. This aircraft was the first of three Panthers lost during the deployment. Lt Cdr Weymouth went on to captain the *Essex* Class carrier USS *Lake Champlain* (CVS-39) in 1961, and he was in command when that ship recovered Alan B Shepard Jr on 5 May 1961 to signal the end of the first US manned space flight. Capt Weymouth later rose to the rank of vice-admiral (*US Navy*)**

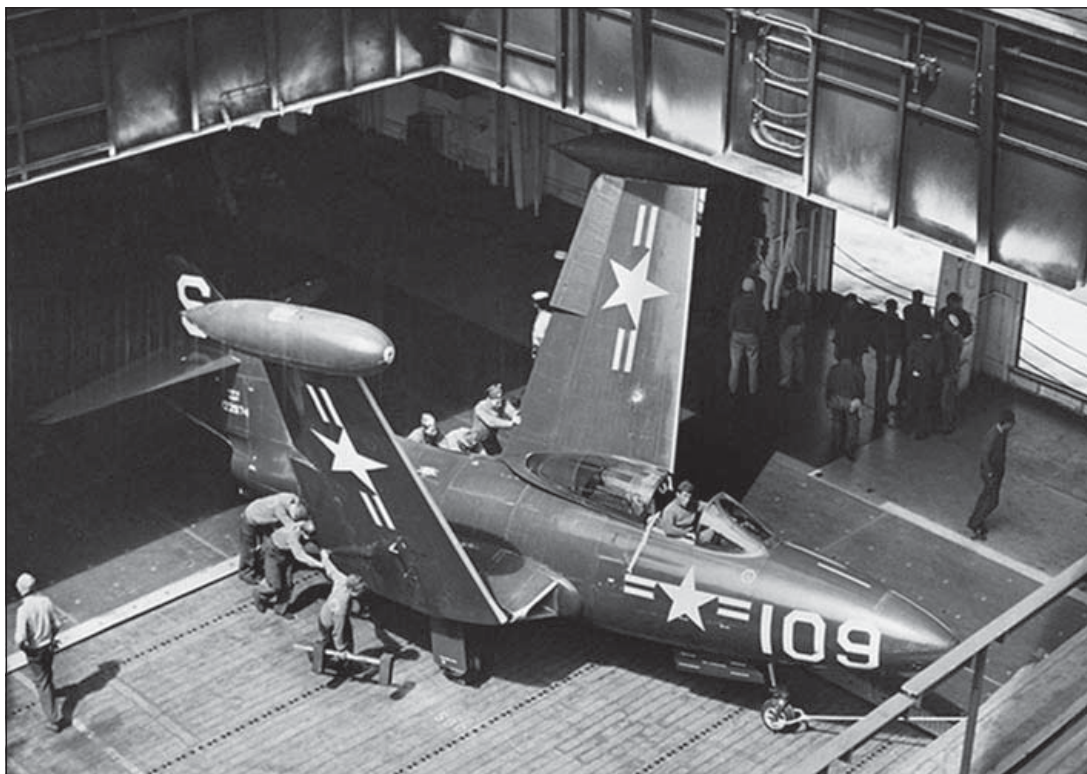
**F9F-3 BuNo 122574 of VF-51 is carefully towed off a flightdeck elevator into CV-45's hangar bay during the early stages of the Korean War. This aircraft was the third, and last, Panther lost by the unit during its first combat cruise, the jet being hit by AAA and its pilot forced to ditch on 19 September 1950. VF-51 and VF-52 were the only units to see combat with Allison J33-A-8-powered 'Dash-3' Panthers – just 54 were built. Surviving examples were later re-fitted with more powerful Pratt & Whitney J42-P-8 turbojet engines, being re-designated as F9F-2s following the conversion (US Navy)**

'After two dry runs the mass of enemy troops separated sufficiently to allow the Marines to put down coloured panels. We used two guns or one rocket at a time, the intention being to make as many runs as possible before we exhausted our ordnance. It also served to keep enemy heads down until Marine reinforcements arrived.

'On each pass we could see at least 100 enemy troops out in the open, standing up and shooting at us with their rifles. We departed the area way below bingo fuel after a major convoy of Marines arrived on the scene at the base of the ridge. We had each made 16 strafing runs, and all four of our Panthers sustained numerous hits from small arms fire. The FAC continued to thank us until we were out of range. On our return the skipper had to report to both the ship's captain and the admiral to explain why we were ten minutes late and had only 600 lbs of fuel remaining. Within hours, however, messages confirmed the FAC's statement that we'd saved the Marine company and accounted for more than 200 enemy troops killed. It was a very rewarding experience to know that we had saved a lot of Marine lives.'

In mid-September, with CV-47 having now sailed around to the Yellow Sea, off Korea's west coast, CVG-11 made a major effort to soften up the area around Inchon in preparation for an amphibious landing by the US Marine Corps that it was hoped would threaten the enemy's flank. This was the signal for F9Fs from both squadrons to range far inland from Inchon to target North Korean reinforcements.

Capt William 'Bill' Gortney was a VF-51 Panther pilot flying from *Valley Forge* during its first cruise of the war. He described some of the early missions flown by CVG-5;



'We did a lot of strafing with our 20 mm cannon, and we ran into some problems, especially when the cold weather set in. The oil we were using on our guns and ammo tended to get too hard and stiff at altitude, which caused the guns not to fire. The earlier missions in warmer weather didn't cause any problems, but when the cooler air moved in we had trouble. When we got back to Okinawa, the Air Force had a squadron of F-80s there, and our supply guy went over and found out what they were doing about it. They were using a different oil that was working well for them, but they didn't have any extra to give us. That batch of good oil ended up in our supply locker nevertheless, and their commanding officer wanted to know if we knew how it had got there!

'We also discovered early on that any time we popped our speed brakes, which were hydraulically operated like our guns, they took so much hydraulic pressure to open that the guns' safety mechanism was simultaneously activated. So, you could find yourself in a strafing run, wanting to slow down, and when you popped your brakes to do so the guns would then refuse to fire. The test folks at "Pax [Patuxent] River" and the Grumman people hastily got together and figured out a cure to this problem, after which they flew out to the carrier and fixed our jets.

'Some of the armed reconnaissance missions we flew were more interesting than others. One of our pilots who had been a farmer back in the 'States saw something that didn't look right when he spotted some oddly shaped haystacks in the middle of a field. He and his wingman strafed a couple of them to see what would happen. It turned out that they were Yak fighters covered with hay. Later that day we launched again and went straight to that field, where we took out the remaining haystacks.

'Some of our missions were focused on taking down the bridges over the Yalu River. We were prohibited from flying in Manchurian airspace so we had to bomb the bridges at a 90-degree angle, which made it almost impossible to get a solid hit. We lost some aeroplanes from the air group trying to accomplish it.

'When our cruise came to an end we headed back to Yokosuka naval base and off-loaded all our F9F-3s from both squadrons. I believe they were to be handed over to the Marine Corps, which would fly them from the base at Pohang. The reason for this was that all of the carrier air groups coming into theatre were equipped with F9F-2s that were equipped with rails to fire rockets and carry smaller bombs.'

The third carrier to arrive in-theatre was USS *Boxer* (CV-21) with CVG-2 embarked. There were no F9F squadrons within the group, however, which deployed with four Corsair units. They were joined by USS *Leyte* (CV-32) and CVG-3, which had left Sasebo, Japan, on 9 October and headed for the Sea of Japan via the Tsushima Strait. CVG-3 flew its first combat sorties on 10 October, and the following day it launched a group-strength strike on major targets in the Songjin area. Its single squadron of F9F-2Bs (VF-31) would subsequently fly an impressive number of missions during the three-month combat cruise.

By October 1950 the North Korean People's Army (NKPA) was in full retreat following the Inchon landing in mid-September. *Leyte* was duly sent further up the east coast of Korea so as to allow its carrier air group to fly sweeps against targets just 20 miles south of the Manchurian-North Korean border. Armed with 5-in HVARs and 20 mm cannon, the Panthers

For many Panther missions over North Korea there were so many targets that pilots found themselves low on fuel when they headed back to the carrier. Often they had so little fuel left in their tanks that they were unable to reach their vessel. This meant they had to divert to a friendly land base, as has happened to this VF-51 Panther from *Valley Forge*. It is being refuelled at Kimpo (K-14) in October 1950 – about two weeks before the Chinese entered the war. The pilot, still wearing his yellow life jacket, is sat on the wing of the jet overseeing its refuelling (Ray Stewart)



of VF-31 destroyed anything that was moving either on road or rail. Some missions proved to be unsuccessful because the enemy had quickly switched to night transportation. Nevertheless, damage done by night-flying Corsairs left many targets exposed at first light. VF-31 also flew follow-up missions the day after a major group strike had been conducted so as to frustrate efforts to repair the damage sustained the previous day. These flights by VF-31 took place before MiG-15s began flying south of the Yalu River, allowing the F9Fs to range all the way up to the border with Manchuria.

CVG-3 records show that between 11 and 15 October its pilots flew a total of 472 offensive sorties and 56 defensive ones, with VF-31 flying its fair share of missions during the operational surge. Its pilots fired a total of 29,204 20 mm cannon rounds to help destroy more than 50 railway wagons and eight lorries. By the end of October the F9Fs had fired nearly 50,000 20 mm rounds.

*Leyte's* carrier air group joined those of the *Philippine Sea* and *Valley Forge* in flying combat missions during the infamous Korean winter. To make matters worse, all three carriers would be on station on 25 October when the Chinese People's Volunteer Army (CPVA) suddenly entered the war, sending hundreds of thousands of troops south into North Korea to help shore up the beleaguered NKPA. *Leyte* was the furthest north of the carriers assigned to TF 77 at the time, so CVG-3 was heavily tasked with providing close air support (CAS) for retreating UN troops as the CPVA advanced south.

In addition to VF-31's F9Fs performing interdiction missions and attacking rail traffic as the communists attempted to keep their troops supplied with ammunition, food and reinforcements, the unit also had to generate combat air patrols (CAPs) that provided protection for the vessels of TF 77 as they sailed ever closer to the enemy coastline. This role became more important seven days after the CPVA entered the conflict when MiG-15s appeared over North Korea for the very first time. Although most sightings were made by Corsair and Mustang pilots performing CAS south of the Yalu, VF-31 was charged with protecting the many vessels of TF 77 that were now within range of communist jet aircraft flying from Manchuria.

VF-31 pilot Ens Jack Cogdell had a combat tour full of memories, and he relates one from late November 1950 that highlighted the dangers posed by the winter weather over the Korean Peninsula;

'On 27 November my division was scheduled for the afternoon CAP. It was a routine assignment that we'd carried out many times before. For us it consisted of flying out 75 miles or so to cover the northern and

western sectors where the task force might be vulnerable. Primarily, it was to guard against an enemy air attack, and we were far enough north to make that a possibility. Once airborne we were vectored by our controller to the exact area that we were to cover.

'In the ready room before the flight I don't remember any

concerns about weather or any other aspect of the mission. I decided there was no reason to bother carrying my Navy issue 0.38-cal revolver. It would be a decision that I later regretted. Once on station we settled into the CAP routine – scanning the empty sky for bogeys, maintaining formation and, with vectors from the controller, staying on station. We usually used our ADF [Automatic Direction Finder] to tune in the music from the Armed Forces Tokyo radio station. About one hour later our controller vectored us back in the direction of the task force. We then tightened up our formation and switched our ADFs back to fleet common frequency to monitor the heading to the ship and be ready for the descent and recovery.

‘Throughout the mission we’d been flying above a solid cloud cover, being directed by the ship’s combat information centre [CIC]. When instructed we duly began our penetration of the overcast. From an altitude of about 30,000 ft, we descended through the “soup” past 20,000 ft and then on down to 10,000 ft – so far, nothing. We expected to reach the bottom at about 2000 ft, but when we passed through 1000 ft without seeing the sea we all began to worry! The clouds were so thick that I could barely see my section leader, my division leader was almost invisible and, at that time, I realised we were flying through a heavy snowstorm! This was the type of weather that all UN aircraft would regularly have to fly in during the late autumn and winter in Korea.

‘Division lead continued to drop down, but at a much reduced rate, through 500 ft and then 200 ft. He finally levelled out at 100 ft. There was still no bottom, although we could just make out the water below us. It was dark grey with ominous white caps. We had no horizontal visibility and could see only the sea immediately below us. I’d lost track of exactly where we were, and tried to glance occasionally at the ADF needle. I soon realised we’d passed the fleet, which was now behind us.’

In such weather the chances of encountering MiG-15s were virtually non-existent. For one thing they were reluctant to engage in combat over the water, and certainly not in zero visibility. Nevertheless, the US Navy had to play it safe and protect the fleet. This explains the number of CAPs flown by the Panthers. Ens Cogdell’s division finally turned round with the CIC’s guidance while still flying just 100 ft above the sea. They were, however, burning their fuel at a dangerous rate, eroding the safety reserve that would provide some margin for error in the landing pattern. Pilots also had to be aware that many ships had antennae and masts at least 100 ft tall. Cogdell and his fellow Naval Aviators again flew over the carrier without getting a visual on it. He takes up the story;

‘Our leader made the decision to abandon this fruitless CAP and try for the airfield at Wonsan. We climbed a few thousand feet and headed west. I was getting low on fuel, but I don’t remember being too concerned about this. Lead got us to Wonsan and we flew along the runway for the standard “break” for landing. As number four in the flight I was last to break, so I was flying by myself for several seconds, passing over the far shore of Wonsan Harbour before it was time to make the upwind turn. As I opened my canopy and started my turn, I looked down to my left. I saw what appeared to be a lot of disturbed earth. It looked like the preparation for foundations, with sewer pipes in place.

There were groups of people, with some running around while others

Launch crews work fast to get the F9F-2Bs of VF-31 into the air on a squadron-strength mission. This unit formed part of CVG-3 aboard *Leyte*, which was assigned to TF 77 from 9 October 1950 through to 19 January 1951. CV-32 undertook only one combat cruise during the Korean War and, unlike most other carriers deployed during the conflict, had only one Panther squadron embarked. CVG-3 initially saw action before Chinese forces had entered the war, and as a result most of the unit's early combat sorties were flown deep into North Korea as far north as the Yalu River. Despite flying combat operations during the worst of the winter weather, VF-31 lost only three Panthers during the cruise (*Tailhook Association*)

appeared to be lying face down in the dirt. Strange behaviour! I landed without incident and parked next to the other three Panthers. I noticed that my low fuel level warning light was on.'

When the four pilots talked to a US Marine Corps officer they discovered that there was no fuel available, and that the CPVA was expected to overrun the field that night. Noting the disbelieving look on their faces, the officer asked them to step outside the tent, where they could hear distant automatic weapons fire and sporadic explosions. As they stood there several US Marine Corps F4U Corsairs took off. They were loaded with bombs that they released when they reached just 500 ft. They then returned to Wonsan to re-load. That convinced the Panther pilots that they had indeed stumbled into a dangerous situation. It was only then that Cogdell realised that what he had witnessed on landing had been Chinese troops, and that many of them had probably been firing at him. It was clear that the Panther pilots could not remain here, so they decided to make another attempt at finding their carrier – even with their low fuel state. Cogdell recalled the tense situation they faced;

'As I started the engine I noted that I had 900 lbs of fuel. The warning light was still on. We moved quickly to the runway and made rolling takeoffs. I was shocked at how quickly the aeroplane accelerated and climbed – I'd have been happy to trade some of that performance for more fuel. We stayed low because of the fuel we'd have used if we'd tried to climb.

'As we headed east towards some low grey clouds in the gathering dusk, lead was trying to contact our carrier. He discovered it had been moving towards us. Believe it or not, they were in decent weather with the deck cleared. We made a visual and, since I was lowest on fuel, I was the first to break. Looking back, I now realise that I'd have gone into the water if I'd been second or third to recover. I landed without incident and hurried out of the landing area, taxiing over the barriers to make way for the other three jets. Before I could climb out of the cockpit, my engine flamed out from fuel starvation. The flight from Wonsan to the *Leyte* had lasted 24 minutes.'



As F-86 Sabres had yet to arrive in Korea, providing a protective screen for the slower propeller-driven types fell to the F9F Panther and F-80 Shooting Star pilots. On 9 November the inevitable happened when Lt Cdr W T Amen, the CO of VF-111 embarked in *Philippine Sea*, got his chance to down one of the Soviet-built swept-wing fighters. His post-mission account of that historic encounter read as follows;

‘Our original plan of attack divided our 12 fighters into three groups – four to clear the area of any MiG interference as they went in with the F4Us, four to cover the slower AD Skyraiders and four to cover the withdrawal from the target area. Our takeoff from the carrier was at 0904 hrs, and we headed straight for the bridges over the Yalu River. Our timing was perfect. We made it in 29 minutes, and that put us over the target right before the slower bombers arrived.

‘We were directly over Sinuiju, which looked about the size of Taejon. The big bridge spanning the Yalu was impressive, and very sturdy looking. Directly across the river were two major enemy airfields, Antung and Mukden. We could clearly see the big runway at Antung, but it was still too far away to ascertain what type of aircraft were parked along the taxiway. As the bomb-laden ADs started their dives on the bridge, I radioed the leader to find out if any of them had sighted MiGs. There was no answer. Ten seconds later a voice came on the radio to say there was a fast-moving jet coming up behind our Panther formation. I looked over my shoulder and there it was – a shiny swept-wing aircraft banking towards me from my “seven o’clock” position.

‘I immediately turned to meet him head-on. My wingman, Ens George Holloman, was close behind me. The other two pilots in my division were coming in at full throttle. The MiG pilot raised his nose and started a steep, almost vertical climb to about 15,000 ft, where he levelled off. All this action had been taking place at the much lower altitude of 4000 ft.

‘Below the cloud base the MiG pilot started to arc and fishtail. Just as he had started his climb, my wingman and I got off a burst of 20 mm at him. It was ineffective. We stayed on his tail. If we’d hesitated the MiG pilot would have gained the advantage – he already had a 100-knot speed advantage. If he’d chosen to remain straight and level he could easily have outdistanced us, but every time he turned we closed the gap. We were firing short bursts at him as we closed in. The other two Panthers of our division were also in pursuit. They fired long bursts of 20 mm without scoring. Evidently, it scared the MiG pilot into a dive, and I got onto his tail.

‘As we were heading almost straight down my airspeed hit 400 . . . 450 . . . 500 knots. I was firing all the way. This was my first dogfight, and I was sure I had him bore sighted. My rounds seemed

**Lt Cdr William T Amen led VF-111 on its first Korean War deployment. A veteran of World War 2 (he had flown FM-2 Wildcats with VC-82 from USS *Anzio* (CVE-57) in 1944-45), he made aviation history on 9 November 1950 by scoring the first air-to-air victory in jet combat when he downed a Soviet MiG-15. He completed the *Philippine Sea* cruise and later commanded a carrier air group (via *Henk van der Lugt*)**



to be hitting dead centre, but I wasn't sure if I had him or not. Suddenly, my Panther started to buffet as the nose was trying to tuck under. I applied my dive brakes and quit shooting. The MiG's dive angle had increased to about 40 degrees. I realised I was through chasing the MiG and wondered how much longer it would be before he started to break apart.

'As we passed through 3000 ft the MiG flipped over onto its back. I thought the pilot was either crazy or had one of the best fighters ever built! A second later I snapped out of it because I could see mountains coming up fast. Then I saw trees and rocks. Pulling hard, I bottomed out with no more than 200 ft to spare. As I turned the nose up, my wingman radioed that I had gotten the MiG. It had gone straight in and exploded. Looking back over my shoulder, it appeared that I'd started a forest fire.'

During the first ten days of November UN hopes of a quick victory in Korea had evaporated as Chinese troops continued to move across the icy Yalu River in large numbers. *Philippine Sea* F9F-2 pilot Ens Allen 'Boot' Hill remembers it well;

'By this time the Chi-Coms [Chinese communist soldiers] were literally pouring across, using the bridges at Sinuiju. On the 10th Corsairs and Skyraiders of VF-113, VF-114 and VA-115 were launched in a major strike to bomb and destroy the numerous bridges. F9Fs from VF-111 and VF-112 were assigned the job of protecting the force by providing low, medium and high CAPs over Sinuiju. Our orders were not to cross north of the Yalu, yet Antung airfield, a major MiG-15 base, was only nine kilometres north of the river.

'The weather was clear and cold and you could see forever. The skipper's division was assigned high CAP, and from 28,000 ft up to 36,000 ft you could see the MiGs lining up, taking off and climbing on their side of the river to altitude, then turning south towards us and the Corsairs and Skyraiders below us. The MiGs wanted to get within firing range of the prop jobs, and it was our duty to prevent them. The F9F-2 was the best fighter in Korea at the time, but with its straight wing we couldn't out-dive or out-climb the MiG. However, if it stayed around long enough we could easily out-turn it.

'We engaged four of them over the next ten minutes, and afterwards my gun camera film showed several HEI hits on the starboard side of a MiG fuselage. When the film was developed on the carrier later that day any of it containing MiG images was forwarded immediately to the Pentagon in Washington, D.C.'

On 12 November *Leyte's* CVG-3 logged 71 sorties against targets in the Sinuiju area, which was as close to the Chinese border as it was possible to go. VF-31 was flying above the strike force in squadron strength to protect the bombers. Fortunately for its pilots there was no interference from enemy aircraft on this occasion, the only threat coming from the multiple gun emplacements south of the river. This all changed within a few days, with MiG-15 pilots opposing the Panthers on most strike missions from mid-November onwards.

These clashes would attract much coverage in the American press, with headlines like 'Navy Jets Win Highest Aerial Fight in History' reflecting a Far East Air Force (FEAF) spokesperson's statement that the fight on 18 November between Panthers from *Valley Forge* and MiG-15s had occurred between 32,000-35,000 ft. And although Panthers from

*Philippine Sea* had participated in this mission too, the two MiG-15s claimed that day had fallen to *Valley Forge* pilots Lt Cdr William Lamb and Lt Robert Parker of VF-52 (they shared a MiG-15 between them) and VF-31's Ens Frederick Weber off *Leyte*. Nevertheless, VF-112's Naval Aviators were also extremely busy that day, as 'Boor' Hill explained;

'Some of our fighters ran into MiGs again, and the skipper's division had to land at Wonsan following a battle over the Yalu River that went into serious overtime. Nobody had more than an indicated 250 lbs of fuel remaining by the time we got to Wonsan. There was absolutely no second chance to go around, so we all touched down on a beat-up pockmarked and short 3800-ft runway. All eight main tyres [on the four aircraft] were blown during rollout. Until Marine assistance arrived, the four Panthers took rifle hits from a small group of North Koreans that had become isolated on the northern tip of the peninsula. It was a serious time, with the Battle of Chosin Reservoir about to commence and the evacuation of Wonsan and Hungnam shortly thereafter. Our Panthers were among the few jets to land at Wonsan during the Korean conflict.

'Around 95 per cent of CVG-11's strikes and reconnaissance missions during November and December 1950 were flown in support of the Marines trying to reach the evacuation points.'

Hill recalled another unusual event during this period when his section leader, Lt Robert 'Chili' Chilton, had to shut down his F9F's engine on the catapult because of a fuel control malfunction;

'I'd been on the other cat and was already airborne, so they launched the spare to join me. If I'd been on deck at that time the flight would have been cancelled. This led to a very rare occasion with two ensigns off the boat and raring to do some damage with no seasoned leader in charge! I had the lead because I was the one briefed on the recce route. We were after enemy troops, locomotives, tanks, trucks and any other targets of opportunity. We were loaded with 5-in Anti-Tank Aircraft Rockets [ATARs] and 20 mm AP and HEI rounds.

'Southwest of Wonsan we spotted a locomotive with several wagons moving into a short tunnel that was no more than 150 metres long. We made very low firing runs that caused several secondary explosions – fire, debris and people flew out of both ends of the tunnel. Obviously, there was much more than just troops loaded into those boxcars. Upon returning, and before debriefing, I was told to report to the flag bridge. The admiral wanted to know about the two ensigns so the skipper went with me. I met Adm Edward Ewen for the first time, and told him about the train trying to take refuge in the tunnel. After describing the secondaries and overall bomb damage assessment, both he and the skipper were smiling. The admiral put his hand on my shoulder and said "Good work, 'Boor'".'

Plane captain John Duby kept a detailed daily diary of his experiences and recollections during *Leyte's* combat cruise. An entry dated 27 November 1950 stated, 'two jet hops, last hop landed at Wonsan, in Korea. Our carrier is in a heavy snowstorm with visibility down to zero. F4U emergency landing from *Phil Sea* – pilot was hit under armpit by shrapnel. F4U flew into cable over North Korea – this was our 22nd day at sea. *Phil Sea* lost another jet'. At this time both carriers were operating in the same area.

*Leyte*'s records show that an impressive number of missions were flown, not only by the Panthers but also by the entire carrier air group, despite the poor weather. On 13 November the carrier had refuelled at sea, allowing CVG-3 to fly 130 sorties over the following two days. The Panthers were airborne on both days to protect the task force and the bombers. The tonnage of ordnance dropped forced the ship to briefly pull out of the line once again to take on more aviation fuel and restock its supply of ammunition. Three days later the process was repeated, allowing another 143 sorties to be flown. This pace was about average for all three carrier air groups working in-theatre at the time.

VF-31's Ens Jack Cogdell was involved in the last days of the evacuation of friendly troops from North Korea, including the US Navy's massive operation from the east coast port city of Hungnam that saw more than 200,000 military personnel and civilians transported to safety by ship between 10 and 24 December 1950. The mission he describes was flown right at the very end of the evacuation on 24 December, when a seemingly endless stream of Chinese troops was advancing inexorably south no matter how hard UN troops, and air power, tried to stop their advance. On that bitterly cold morning Cogdell and his skipper took off from their carrier just before dawn so as to be overhead during the final hours of the evacuation;

'We were tasked with staying directly over Hungnam to assist in any way we could. I'd never flown off a carrier in the dark before – Panther pilots rarely conducted flight operations at sea after dark. There was just the faintest hint of dawn to the east as we climbed in a westerly direction towards our assigned station. As we arrived overhead the land and sea below us hadn't yet seen the sunrise. It was an unforgettable sight. In the bay offshore from Hungnam, a number of US warships were positioned broadside to the city. While small craft brought the last of the evacuees and equipment out to the larger transport vessels, the warships were firing into the hills and other areas swarming with advancing Chinese troops.

'The battleship USS *Missouri* [BB-63] was firing full broadsides every few minutes. In the pre-dawn darkness we could see the flames from its enormous 16-in guns as they fired, followed seconds later by huge explosions inland as the shells hit the target area. Other ships were firing too, but the sight of *Missouri*'s massive guns dominated the scene. We were witnessing the very end of the evacuation from Hungnam, and it was a very memorable experience.'

By this time USS *Princeton* (CV-37) and its CVG-19 had joined TF 77, the vessel being the fifth US carrier committed to operations over Korea. Once again, the carrier air group's dominant strike aircraft were the F4U-4 Corsairs and AD-4 Skyraiders, with VF-191 being the only F9F-2-equipped unit aboard. These were not the only Panthers on the flightdeck of CV-37, however, as Detachment E of VC-61 was giving the F9F-2P photo-reconnaissance variant its operational debut on this cruise. An aerial camera, and its controls, replaced the quartet of 20 mm cannon and their ammunition magazines in the nose of the F9F-2P. These unarmed, but generally fighter escorted, Panthers provided aerial photographic intelligence in support of carrier air group operations. Detachments from VC-61 flew the bulk of F9F-2P missions in Korea.

# THE WAR DRAGS ON

When the Chinese entered the war they made the repair of roads and railway lines a top priority. In the mountainous terrain of North Korea many key transportation routes that took supplies south from Manchuria to the frontline could be defended by gun batteries sited on the peaks surrounding them. Thanks to their elevation, gunners manning these weapons had a clear shot at any fighter-bombers diving into the valleys to attack bridges and railway lines.

Pilots from *Philippine Sea*, *Leyte*, *Princeton* and *Valley Forge* – the first carriers to engage the CPVA following its late October invasion – had clearly done an effective job in slowing the movement of supplies and equipment from Manchuria. But the Chinese had progressively raised the stakes with the widespread deployment of automatic anti-aircraft gun batteries to defend the most vulnerable re-supply routes. The Panther units did yeoman service throughout this period attacking communist transportation, although their aircraft were unable to carry ordnance loads as heavy as the AD Skyraiders.

As noted at the end of the previous chapter, the arrival of *Princeton* off Korea in early December 1950 marked the arrival of the photo-reconnaissance F9F-2P in-theatre. Progressively replacing the F4U-5P Corsair, the F9F-2P would operate alongside one or two Panther fighter squadrons within a typical carrier air group.

The initial priority tasking for *Princeton* and its CVG-19 was CAS, as UN forces were still in rapid retreat in the face of overwhelming numbers of Chinese troops. As a result, December 1950 was a hectic time for the personnel aboard all the carriers supporting UN forces then under siege in North Korea. *Princeton's* mid-month reports clearly reflected this, with VF-191's F9F-2 pilots spending most of their time flying cover for fellow Naval Aviators in Skyraiders and Corsairs at a time when MiG-15s were entering the war in ever-increasing numbers.

In their search for enemy aircraft, the fighter pilots reported that, from medium altitude, they had observed large numbers of troops and trucks moving south on the coastal roads from Hongwon to Chakto-ri. While the Panther pilots kept a keen eye on events unfolding in the north, the bombers engaged moving targets with napalm and bombs. Yet despite undertaking myriad missions, they could not prevent the southerly flow of traffic – the communist cause was greatly assisted by the marginal December weather, which often prevented missions from being flown. If the CPVA had waited until the late spring of 1951 to make its move into North Korea it would have encountered much stiffer resistance. The Chinese military tacticians had picked the most opportune time to invade.

With the Corsair and Skyraider units finding it increasingly difficult to service all the transportation targets being spotted in the north, F9F squadrons were called upon to perform low-level attacks. Dropping down from altitude, the fighter pilots strafed troop columns and fired rockets into buildings housing Chinese troops.

**A trio of photo-reconnaissance pilots from VC-61 Det F conduct an impromptu briefing in front of one of their aircraft on the flightdeck of *Boxer* in the early spring of 1951. Assigned to CVG-101, Det F was only the second operator of the F9F-2P to see combat in Korea – VC-61 Det E had been in-theatre with CVG-19 aboard *Princeton* since December 1950. A small number of 'Dash-2' Panthers were converted into photo-reconnaissance F9F-2Ps in 1949-50, and these soon began replacing F4U-5Ps in fleet service. The jets' higher speed gave them several advantages over their piston-engined predecessors, including a reduction in vulnerability to battle damage. It also meant that escorts were generally unnecessary unless the aircraft were operating in the northwest corner of North Korea – dubbed 'MiG Alley' (US Navy)**



The rapid retreat of UN forces, along with the hasty evacuation of various US Marine Corps and USAF units that had moved into recently captured NKPAF airfields, meant that much valuable ordnance and equipment had to be abandoned in situ. VF-191's F9Fs were loaded with rockets and their pilots ordered to attack the airfield at Yonpo, near Pyongyang, so as to prevent as much of this materiel as possible from falling into the hands of advancing enemy troops. Squadron records state that on 21 December more than 70 cases of 5-in HVARs were destroyed at the airfield, together with numerous drums of aviation fuel. The following day the strike was repeated, and this time 60 drums of fuel exploded when the F9F pilots made multiple strafing passes using their 20 mm cannon. VF-191 returned to the airfield later that afternoon to attack a major fuel dump that had been a big asset to UN forces only a few weeks earlier. The Panthers' 20 mm fire destroyed more than 200 drums of fuel.

On 24 December, with UN forces in full retreat almost back to the original border between North and South Korea at the 38th Parallel, F9F-2Ps from Detachment E of VC-61 photographed the village of Tongyong-ri. The images they brought back revealed that the Chinese were building up a sizeable fuel storage depot within the village itself. Just hours later F9Fs from VF-191 struck Tongyong-ri with bombs and rockets, igniting large secondary explosions. Despite substantial small arms fire all aircraft returned safely to *Princeton*. Frustratingly for CVG-19, a follow-up photo-reconnaissance mission failed to get good target damage evaluation imagery due to bad weather over Tongyong-ri. The precise extent of the damage caused could not therefore be determined.

At that time VF-191 had an inventory of 22 F9F-2s with 30 pilots. By contrast, the group's two F4U-4 squadrons had a strength of 26 aircraft each and no fewer than 46 pilots per unit. The period between 18 January and 11 February 1951 was a busy one for CVG-19, its pilots logging 794 sorties, most of which were CAS missions. This figure does not include the routine CAPs flown by the Panther squadron on a daily basis. Some 93 of the sorties were armed reconnaissance missions, which represented most of VF-191's tasking at this time. With only one Panther squadron embarked in CV-37, the F9F pilots faced a heavy workload.

VC-61 Detachment E logged 25 missions during this period, with most sorties being generated to secure pre-strike photographic coverage of the 176 bridges located along the enemy's key transportation routes that stretched 600 miles from Manchuria to central Korea. The F9F-2Ps also flew post-strike missions to gain an accurate assessment of the damage inflicted on the most important targets by CVG-19's Corsairs and Skyraiders.

Only a small number of F9F-2Ps were built by Grumman, and this in turn meant that detachments



equipped with the aircraft typically only deployed on combat cruises with three examples at most. Strikes on bridges were briefed from photographs taken by the photo-reconnaissance aircraft, attack pilots always being provided with imagery for use during such missions. Post-strike photographs taken by F4U-5Ps and F9F-2Ps were essential, for without them target damage evaluation would have been impossible.

Towards the end of the *Princeton's* first combat cruise an evaluation of VC-61 Detachment E's F9F-2P operations noted that 'our photographic operations during the recent period justify the following conclusions; (a) that properly planned and executed aerial photography is vital to any large scale sustained programme of interdiction; and (b) that the F9F-2P represents an improvement over propeller-driven aircraft. It is believed that the high speed of the Panther, plus a minimum of vibration, make it particularly suitable for photography wherein the tactical situation is sufficiently flexible to require the combination of speed plus precision accuracy'.

An assessment of CVG-19's jet operations from mid-January to mid-February 1951 indicated that VF-191 had flown 114 armed reconnaissance missions and only two CAPs to cover pilot rescue missions (ResCaps). The photo-reconnaissance F9F-2Ps were also particularly active – despite the modest size of the detachment – flying 48 sorties to support pre- and post-strike requirements. Between late February and early April 1951 VF-191's Panther inventory dwindled to 17 jets and 28 pilots, although the VC-61 detachment managed to keep its strength at three photo-recce aircraft.

CVG-19 remained fully occupied as Chinese troop numbers continued to increase and the stream of supplies moving south offered many tempting targets. During daylight hours the Panther pilots protected the bombers and scoured North Korean roads for any moving targets. The group's reports for that period state that one Panther was lost (to flak on 8 March, killing the pilot) and another was too badly damaged to fly again. At this time F9Fs were being unleashed on all types of targets, including tough ones like bridges and tunnels. The results achieved against them were deemed to be only fair, however, because the Panther could not carry as much weaponry as the Skyraider. Even so, VF-191 always performed well in air-to-ground missions with HVARs and 20 mm cannon.

**Low-level interdiction missions were particularly dangerous due to intense ground fire, to say nothing of the trees. Indeed, this VF-721 Panther (BuNo 123657) hit a small tree while on a strafing run on 5 April 1951, and its pilot was lucky to make it back to *Boxer* in one piece. The fighter was not repaired (Murray Collection)**

On 2 April two VF-191 F9F-2Bs were launched from *Princeton* carrying unusual weapons loads. Such aircraft were normally armed with rockets and cannon, as well as two light 250-lb bombs. The jets' power even when combined with that of the ship's catapults was usually insufficient to get F9Fs aloft with heavier loads. On this occasion, however, the VF-191 jets were loaded with two 250-lb GP bombs fused for explosion on contact, two 250-lb GP bombs with eight- to 15-second delay fuses and two 100-lb GP bombs. This gave a total payload of 1200 lbs per aircraft. Their target was a railway bridge near Songjin. The vessel was sailed into a particularly strong wind, which gave the heavily laden jets the required lift on launch to complete successful takeoffs. The mission subsequently proved to be very successful, with the target being completely destroyed. Reports noted that this was the first time a jet aircraft had been catapulted from a carrier deck carrying so much ordnance.

The next carrier to arrive in Korean waters, in mid-December, was *Valley Forge*, commencing its second combat cruise of the conflict. CVG-5 had by now been replaced by CVG-2, which consisted of three F4U-4 units and a solitary squadron of AD-2s. In late March it was relieved by *Boxer*, which returned to TF 77 with CVG-101 embarked – CV-21 was making the seventh major carrier deployment of the war. Included within its carrier air group was VF-721 (a US Naval Reserve squadron called to active duty on 20 July 1950), flying F9F-2Bs, and VC-61 Detachment F and its F9F-2Ps. CVG-101 launched its first strikes against targets on the east coast of North Korea on 27 March, enemy territory being in sight from the vessel when the aircraft departed *Boxer*. CVG-101 was led by *Princeton*'s experienced air group on this occasion. Once in action the Panthers of VF-721 worked at a fast tempo fulfilling their primary mission of armed reconnaissance.

The pilots flying these missions usually followed the eastern coastline north to Chongjin, Wonsan and Hungnam, or flew all the way up to the Chosin Reservoir – a major staging point for numerous Chinese divisions heading south. Maintaining the pressure on these areas was considered to be of such importance that when the Panthers finished their daytime sweeps, F4U-5N and AD-4N 'night hecklers' were ordered to continue the attacks after dark.

Aside from embarking CVG-101, *Boxer* was also used to ferry 145 F-51D Mustangs and 70 type-experienced pilots to the Far East to strengthen the Fifth Air Force's fighter-bomber units in Korea in 1951. Several of the Mustangs can be seen at the far right of this photograph. The F9F-2Bs chained down alongside the USAF fighters were destined for Korea too, being supplied as attrition replacements to VMF-311 at Pohang (K-3) (Ray Carnahan)



On 16 April CVG-101 sent its entire force on a variety of missions. It flew a total of 112 defensive and offensive sorties that day, including 12 photo-reconnaissance missions. On each occasion the F9F-2Ps were escorted by at least four Panthers from VF-721. The balance of the Grumman fighters were committed to defending the carrier and escorting the bombers inland, however. One jet was damaged and had to ditch on the downwind leg of its landing approach when the engine quit. The pilot was in the water for about five minutes before being pulled to safety by a helicopter.

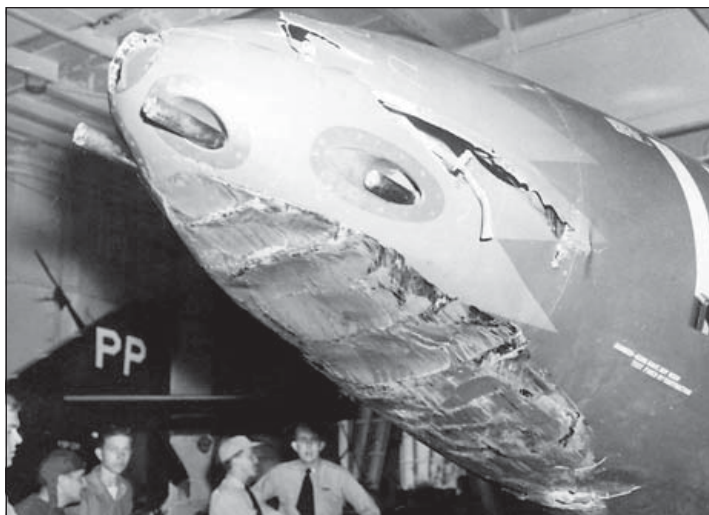
Two days later the group was involved in an all-out attack on heavy enemy troop concentrations near the North Korean city of Hamhung. The intensity of this operation meant that 115 sorties were flown that day, and CVG-101 lost a single F4U-4 from VF-884, along with its pilot. Despite the high mission tempo maintained by the carriers of TF 77 in March and April 1951, only two Panthers were lost due to enemy action – one from *Princeton* in March and one from *Boxer* in April. The latter jet from VF-721 made it back to CV-21 and landed despite having suffered heavy damage after hitting a tree on a low-level strafing run. It was later struck off charge.

Panthers flying armed reconnaissance missions were loaded with six 5-in HVARs and a full load of 20 mm ammunition, while jets performing photo-recce escort had no pylon-mounted ordnance.

Between late March and mid-April *Boxer* was positioned offshore between Songjin and Hamhung, its location giving its F4U-5NL (VC-3 Det F) and AD-4N (VC-35 Det F) heckler aircraft easy access to their targets along the roads and railway lines that crisscrossed this area. It was a successful time for both CVG-19 and CVG-101, with the latter group's VF-721 firing a total of 352 6.5-in ATARs and 211 5-in HVARs, as well as 36,070 20 mm cannon rounds. Yet according to CVG-101's operational log for the first six weeks of the cruise, launches of jet aircraft were frequently cancelled due to low visibility or lack of wind speed over the deck. No aerial opposition was encountered by either VF-721 or VC-61 during this period.

The F9F-2Bs were regularly scheduled for 1.5-hour armed reconnaissance and photo escort sorties, together with occasional CAPs. The squadron log also noted that returning 30 minutes early with at least 1200 lbs of fuel on board was mandatory. Arrestor hooks had to be extended well before the jets entered the recovery pattern overhead the carrier so as to allow enough time – and fuel – for emergency action to be taken if the hook failed to fully extend. VF-721 was also required to have a senior pilot standing by to advise the ship's officers on the handling of emergencies involving jet aircraft.

Additional procedures employed by *Boxer* for handling the Panthers applied to other carriers as well. Parachutes were difficult to maintain on board ship and leaking canopies could affect their reliability when wet. Waterproof canopy covers were therefore used to protect the 'chutes



**This unidentified F9F-2B from VF-721 was flown through the top of a pine tree by its pilot while on a low-level strafing run in the spring of 1951. Further damage was done when it hit the barrier on *Boxer's* flightdeck upon returning to the carrier. The Panther parked next to it, displaying 'PP' tailcode letters, was a photo-reconnaissance F9F-2P assigned to VC-61 Det F (Joe McGraw)**



Lt W O 'Swede' Nelson of VF-721 was photographed at the controls of F9F-2B BuNo 123643 whilst flying as part of a protective screen for a strike force attacking targets along the coast of North Korea in the summer of 1951. Such screens often required at least two divisions of Panthers to be effective. VF-721 was the sole F9F fighter squadron assigned to CVG-101 during *Boxer's* 1951 war cruise (W O Nelson)

Panther pilots from VF-721 attend a mission briefing in one of *Boxer's* ready rooms during the ship's 1951 combat cruise. The briefing was followed by a dash up to the flightdeck, where the pilots manned their aircraft (Joe McGraw)



when the aircraft were tied down on the deck. And the aircraft had to be closely inspected after each mission to ensure that even the smallest bullet hole was repaired. In a storm any hole could allow water into the airframe and, over the long term, cause structural damage to the aircraft.

During the first 30 days of the cruise VF-721 logged 265.1 flying hours, which averaged out to

around 13 hours per aircraft. By comparison, AD Skyraider squadron VA-702 recorded a whopping 802 flying hours, the unit benefiting from the aircraft's superior fuel capacity and fuel efficiency in comparison with the F9F-2B. Although VF-721 lost only one Panther in May, the unit suffered more than its share of battle damage. Indeed, squadron records state that one fighter sustained a hole through its engine and varying degrees of flak damage was found in 16 other Panthers. One jet was damaged when a 5-in HVAR rocket fin tore a hole in the wing above the mounting pylon. With better weather in May VF-721 was able to increase its flying hours to 595, while VC-61 Det F recorded 87.

As a result of the flak damage, and the arrival of newer and more deadly anti-aircraft guns, the strategy for CAS and armed reconnaissance missions was changed. Panther pilots were now required to pull out of their attack runs at much higher altitude, and pay particular attention to their direction of travel. This also meant that reconnaissance missions would now be flown at altitudes of between 500 ft and 1000 ft so as to ensure better target coverage.

The monthly reports compiled by CVG-101 stated that during the final weeks of the cruise (*Boxer* was relieved in early October 1951) incidents involving 'hung rockets' had diminished significantly – this reflected the greater availability of new ordnance. However, VF-721 had begun to experience problems with the 20 mm guns fitted to its Panthers due to their frequent use. The solution was to replace the weapons' firing pins, but because

of the time involved in carrying out this procedure the change did not usually happen until the guns were dismantled for cleaning and general maintenance. This problem was almost certainly encountered by other Panther units too.

VF-721 aircraft also encountered failures of their Mk 9 rocket launchers. This was attributed to the launchers being too weak for the stresses placed upon them in flight. Squadron records for the last few months of the cruise show that the Panthers fired a total of 42,190 20 mm rounds and 517 rockets.



In August alone seven Panthers sustained flak damage, while another could not extend its hook on landing and collided with the barrier, causing heavy damage. Finally, an aircraft was lost when it ditched after a faulty catapult launch, its pilot being recovered.

The pilot of the Panther that had suffered hook trouble (BuNo 123651) had to engage all three Davis-type barriers. This, however, proved ineffective as the main landing gear sheared off and the aircraft was finally stopped by a row of flightdeck tractors spotted forward. As a direct result of this incident all Panther pilots were ordered to extend their hooks before leaving the land, or 20 minutes before landing if they were flying a CAP mission. This would give the pilot sufficient time to divert to the nearest South Korean air base if necessary.

*Philippine Sea* had commenced its second war cruise just days after *Boxer* had joined TF 77, its CVG-2 embarking a trio of F4U-4 squadrons and a solitary AD-2 unit as it had done during its previous two spells over Korea – CV-47 was its third carrier in six months! *Philippine Sea* was replaced in TF 77 by USS *Bon Homme Richard* (CV-31) at the very end of May 1951, its CVG-102 including F9F-2B-equipped VF-781 (another US Naval Reserve unit, which was called to active duty on 2 August 1950) and VC-61 Det G with F9F-2Ps within its ranks. The vessel would remain with TF 77 until 30 November 1951. Once on station off the North Korean coast, CVG-102 launched its first strikes on 31 May. A total of 26 sorties, of which 20 were offensive strikes and six protective CAPs over the carrier, were flown that day.

Few of VF-781's pilots had any combat experience, so some of *Boxer*'s battle-hardened Naval Aviators cross-decked to help the unit out. On the first day of operations for the new carrier air group one of VF-721's pilots suffered a faulty catapult shot and went straight off the bow of the vessel

**Seen towards the end of VF-721's six months on the line with TF 77, F9F-2B BuNo 123655 boasts an impressive mission tally on its centre fuselage. Assigned to Lt(jg) Norb Melsek, the fighter appears to be in spotless condition, despite its heavy use in interdiction and CAS missions aimed at slowing the rapid Chinese advance (Norb Melsek)**



A division of four F9F-2Bs from VF-721 fly low over USS *Tingey* (DD-539) in the autumn of 1951. A Fletcher-class destroyer of World War 2 vintage, *Tingey* operated off Wonsan, on the east coast of Korea, between August and December 1951. During this period the vessel supplied gunfire support for UN ground troops, conducted anti-mining and shore bombardment patrols off Hungnam and provided support for Republic of Korea commando raids. Vessels such as this played an important part in rescuing downed aviators. In return, the Panther units were charged with providing CAPs for ships that came within range of MiG-15 bases when sailing off the North Korean coast (US Navy)

into the sea – he was safely retrieved in just a matter of minutes. The remaining aircraft from CVG-102 enjoyed great success on 31 May, as Panther and Corsair pilots, working with a FAC, were able to inflict many casualties on enemy troops massing on a ridge. VF-781 soon gained the necessary expertise to make it an effective unit, as did VC-61 Det G. The latter outfit followed up this attack with 99 sorties over the next few

weeks, returning with good post-strike images on nearly all of them.

From the end of May to the end of July CVG-102's pilots logged a total of 2687 sorties thanks to the much-improved weather conditions. The F9Fs of VF-781 made a significant contribution to this tally by flying armed reconnaissance, CAPs and photo-escort missions. Records show that more than 236,800 20 mm rounds were fired at a wide variety of targets. In addition, 1093 HVARs and 1237 ATARs were also expended. There were sporadic reports of faulty VT (Variable Time) fuses, so additional precautions were taken to prevent the weapons becoming armed while still attached to the aircraft. The measures included a second jump-out pin in the arming solenoid, which duly resulted in fewer incidents being reported.

During this period 15 Panthers were hit by ground fire but no aircraft were lost in combat. VF-781 did, however, lose three F9F-2Bs to other causes – two aircraft fell victim to faulty catapult shots and one was lost due to fuel exhaustion caused by a combination of too much time over the target and bad weather on the return flight to the carrier. All three pilots were plucked from the sea by helicopter.

Between early August and mid-September *Bon Homme Richard's* pilots continued to fly an impressive number of sorties. For reasons unknown the amount of damage sustained by the aircraft in the late summer dropped considerably. Only one VF-781 Panther took hits over its target, but it returned safely to the carrier. On 24 August another F9F-2B, flown by Lt Robert Hughes, became separated from the F9F-2P it was escorting when the fighter's radio malfunctioned. Hughes soon lost his bearings due to the lack of communication and had to ditch 20 miles off the North Korean coast when he ran out of fuel. He came down into the wind and on a rough sea. The impact pushed the four 20 mm guns back into the aircraft's cockpit, leaving Hughes with a broken leg and numerous bruises. He was rescued six hours later, however.

When USS *Essex* (CV-9) arrived off Korea on 22 August 1951, its embarked carrier air group, CVG-5, boasted squadrons operating two jet fighter types. Before the carrier left San Diego for the Far East one of CVG-5's Panther squadrons (VF-52, which had seen action over Korea alongside F9F-2-equipped VF-51 from *Valley Forge* the previous year) was replaced by VF-172, equipped with the McDonnell F2H Banshee. Both the F9F-2 and F2H-2 would be used exclusively on armed reconnaissance flights and daytime CAPs.

In the last week of August 23 Panthers and Banshees from *Essex's* carrier air group performed an unusual mission when they were sent deep into North Korea as high-altitude escorts for USAF B-29 heavy bombers. This is believed to have been the first time during the conflict that US Navy jets had escorted USAF aircraft over enemy territory.

When Panthers flew armed reconnaissance and interdiction missions the lack of adequate communication channels quickly proved to be a serious handicap for the units involved. Regular radio transmissions were a crucial part of these missions, and the assigned channels soon became overcrowded. Although this problem was eventually rectified, it was clear to everyone involved that had the F9Fs been targeted by MiG-15s the outcome could have been disastrous due to pilots being prevented from making warning calls over the radio.

Jet fighter tactics had to be tailored to Korean conditions following the first encounter with MiG-15s in November 1950. These tactics were subject to continual change, US Navy records revealing that alterations were continually being made throughout 1951. Initially, there were three armed reconnaissance tactical dispositions that comprised two-, three- or four-aircraft formations. The two-aircraft section was widely used by TF 77 before combat operations in Korea. Over a familiar flightpath, the two-ship tactic was found to work well – the low man weaved across the flightpath and adjacent area at a height of 1000-1500 ft and an airspeed of 250-350 knots. But the low man was unable to navigate accurately or take notes if he was to maintain an effective search for camouflaged targets. The number two pilot had therefore to keep the low man in sight, navigate and be ready to attack targets indicated by the other pilot, as well as suppress anti-aircraft fire. This two-Panther section would not be employed in the presence of enemy aircraft.

The three-ship F9F armed reconnaissance formation was considered the optimum tactic when there was no aerial opposition. The number one pilot functioned exactly as if the flight consisted of just two aircraft. The number two pilot's sole responsibility was to keep the low-flying aircraft in sight and attack any suitable targets. The number three pilot flew slightly below and 45 degrees behind number two to enable him to keep the two other fighters in sight. He navigated, took notes and coordinated his attacks with the other two.

Using a division of four Panthers on an armed reconnaissance mission was considered rather cumbersome, but necessary if flown within MiG-15 range. In this configuration the first three pilots would have the same responsibilities as if they were in a standard three-ship formation. The number four pilot would act as a lookout and take



VF-781 was the second Panther-equipped US Naval Reserve unit committed to the conflict in Korea, embarking with CVG-102 (which consisted primarily of mobilised US Naval Reserve squadrons) in USS *Bon Homme Richard* (CV-31) in May 1951. Yet to see action, these F9F-2Bs from VF-781 were photographed parked tightly aboard the vessel during a brief port call to US Fleet Activities Sasebo, Japan, just prior to CV-31 checking in with TF 77. All US carrier deployments included time spent at Sasebo for major maintenance on the ship, stores replenishment and rest and relaxation (R&R) for the crew. VF-781 records show that during its first 47 days of operations the squadron expended 210,000 rounds of 20 mm ammunition, most of which were fired during low-level attacks on road and rail traffic. Low-level strafing runs made the aircraft vulnerable to small and medium calibre weapons, and VF-781 lost no fewer than seven Panthers (not all of them to enemy action) during its combat cruise. Many others returned to the ship having sustained multiple hits (Jettie Hill)

position abreast of the number three aircraft, weaving to maintain position. He would be searching for enemy aircraft to give the other three pilots enough time to react to the threat.

## SPLIT CRUISE

Like *Valley Forge* before it, *Princeton's* first combat cruise was divided into two parts. Unlike CV-45, which had replaced CVG-5 with CVG-2 after four months with TF 77, CV-37 kept CVG-19 embarked from November 1950 through to August 1951. However, in late May 1951 CVG-19 became CVG-19X when it received new fighter and attack squadrons from the USA to replace the combat-weary units that had initially deployed with the carrier six months earlier. Included in the swap was F9F-2-equipped VF-23, which replaced VF-191. The new unit would enjoy an exceptional in-service rate of 92.4 per cent for its Panthers, allowing VF-23 to work closely with airborne FACs during the summer of 1951.

In June CVG-19X focused its efforts on areas in which Chinese troop concentrations had been reported. With VF-23's F9Fs flying both top cover and armed reconnaissance sorties, the group's aircraft caused significant damage to targets that were repeatedly attacked in the provinces of Yangdok, Chorwon and Majon-ni. Shortly after these strikes had taken place the fighters escorted F9F-2Ps of VC-61 Det E over targets in the Pyongyang, Wonsan and Hamhung areas at the very limits of the MiG-15's range. No aerial interference was encountered.

Constant daily use took a toll of the carrier's jet blast deflectors, which required replacement by stronger units as a result. The intensity of operations is illustrated by the fact that about 30 days after installation, the deflectors on *Princeton's* port catapult had been subjected to 563 full power blasts. This equated to 139 minutes on the port catapult and 486 full power blasts on the starboard one for a total of 99 minutes. The replacements proved more effective, with no noticeable defects or damage reported.

*Bon Homme Richard's* first combat cruise of the war would last until mid-December 1951. From early October the ship and its pilots were faced with typical bad weather off the Korean coast. One day in early November, following the arrival of a dangerous weather system along the east coast, a division of VF-781 Panthers took off late in the afternoon to

One of VF-23's F9F-2s is hooked up to the catapult and ready for a quick launch as soon as any potential threat is picked up on radar. This squadron was CVG-19X's only Panther unit flying from *Princeton* during the carrier air group's brief 31 May to 29 August 1951 combat cruise (National Archives)



attack road traffic. The enemy probably assumed the carrier-borne aircraft would be confined to their decks, even though the weather was improving in the target area. As the Panthers approached they found the roads jammed with trucks heading south. There was nowhere to hide and when the attack was completed 14 lorries had been destroyed.

As the aircraft headed back to the carrier the pilots radioed the targets' position. Minutes later another four-ship formation was diverted to the area to destroy a further 15 vehicles. By this time darkness was setting in, so a call went out for the F4U-5NL and AD-4N night hecklers of VC-3 Det G and VC-35 Det G, respectively, to converge on the site. By the time they had finished the string of destroyed trucks seemed endless, and there were numerous secondary explosions. It was one of the most successful missions flown by the F9F-2Bs for some time. The lifting weather front had played its part.

But November brought dangerous wind conditions and snowstorms. These conspired to keep aircraft chained to the flightdeck for days on end. When conditions improved slightly to marginal, operations were resumed, but there remained a definite risk to the safety of pilots and aircraft. *Bon Homme Richard's* records for November state that on the 3rd one of VF-781's Panthers slammed into the pitching deck on recovery, causing heavy structural damage. Ten days later another Panther suffered a flameout, forcing the pilot to ditch on the carrier's starboard side. The pilot was safely recovered by helicopter. On 17 November another VF-781 aircraft dived into the sea at full power ahead of the ship following a defective catapult shot. The pilot was recovered. The same thing happened on the 21st and, again, the pilot was recovered from the water.

F9F operations in bad winter weather certainly had their ups and downs. Several pilots related that the hardest part was waiting for the 'squawk box' (tannoy) to blare out, 'Pilots, man your planes!' When they heard that they grabbed their helmets, oxygen masks, maps and kneepads and went as fast as they could, encumbered as they were, to the catwalk leading to the ladder that took them the eight or nine feet up to the flightdeck. The Panther pilots usually had to walk to the aft end of the flightdeck as their F9Fs were usually the last to be launched. However, if they were flying a CAP they would be in front of the rest.

A quick pre-flight check could be done if there was sufficient light, and then came the struggle up into the cockpit with all the flight gear on. This included the 'Poopy Suit' during the winter months. Wearing it meant that even the slimmest pilots would feel their shoulders touching both sides of the cockpit. After donning the parachute's two leg straps and hooking up the central chest straps, the next step was to hook the lanyard to the life raft in the seat. The plane captain was a big help in this routine, as he handed the shoulder harness to the pilot to



Most of VF-23's inventory of F9F-2s can be seen in this view of *Princeton* during late August 1951. Two carriers were on-station along the same coastline with TF 77 at this stage of the conflict, the other ship (*Bon Homme Richard*) being clearly visible at the 11 o'clock position. CVG-19X was nearing the end of its time on the line when this photograph was taken, hence the impressive bomb tallies that adorn most of the Panthers (*National Archives*)

connect with the seat belt. That done, the pilot was able to plug in his oxygen hose, G-suit hose and, lastly, his radio jack. The final item on the list was to adjust the headrest for the catapult launch, while raising the catapult rod in front of the throttle quadrant. These procedures were exhausting enough, but the order to start engines and to proceed forward had yet to be given.

When the instruction to start engines came the three-wheeled starter trolley was already plugged into the leading F9Fs. As each engine was started the trolley was unplugged and moved to the next Panther in line. Some pilots were uneasy about being parked on the deck at a 45-degree angle with the F9F's rear fuselage projecting over the catwalk. For those on CAP duties, first in line and facing forward, it was not too bad when the carrier turned into the wind, but if they were spotted amidships and at a sharp angle to the deck's centreline, it was different. During the turn pilots often had the uncomfortable sensation of being toppled backwards into the sea or of skidding across the slick flightdeck into another aircraft. Often, as the carrier turned into the wind to launch aircraft, the F9Fs would settle back on to their tailskids, producing a further unpleasant sensation for their pilots.

In winter pilots found that a bitter wind deadened the left side of their faces because cockpit canopies had to be left open. Pilots then worried about the catapult launch. Assuming that they enjoyed a successful shot, Naval Aviators then had to fly the mission, before returning to a pitching, heaving deck.

The F9F-2Ps of CVG-102's VC-61 Detachment G were kept busy when weather permitted. The pre- and post-strike images obtained by the aircraft were critical to the carrier air group's success. Documents from 17 December 1951 (the end of CV-31's seven-month deployment) indicate that photo-reconnaissance missions averaged about 1.5 hours in length. Distances to the first targets of each mission varied from 65 to 225 miles. The oblique camera was used on 73 of the 213 sorties in which photographs were obtained, while the vertical camera was used 211 times.

The most critical targets for the F9F-2P's cameras were bridges, followed by railway marshalling yards. Photo-mapping was given high priority, especially along the main roads, because the imagery obtained usually indicated the position of the heaviest concentrations of anti-aircraft gun batteries. Det G's fast-moving F9F-2Ps were hit only nine times on these flights, and most strikes came from small arms fire due to the low altitude at which the jets were required to fly in order to obtain accurate images. These impressive figures meant that at the end of the cruise Det G returned with the same three F9F-2Ps that it had embarked seven months earlier.

## **HIGH LOSSES**

Records show that the US Navy suffered high aircraft losses in 1951, with the F9F squadrons being depleted by at least 24 Panthers due to operational causes together with enemy ground fire. VF-51, in particular, was badly affected by attrition in September, when it lost five F9F-2s. Three of these aircraft fell to enemy fire on 3 and 4 September, resulting in the deaths of two pilots.

The first jet downed (BuNo 125122) was being flown by Ens Neil Armstrong, who subsequently became the first man to set foot on the moon. Making his combat debut on 29 August when he escorted a F9F-2P of VC-61 Det B over Songjin, Armstrong was flying an armed reconnaissance sortie over transportation and storage facilities south of the village of Majon-ni, west of Wonsan, when his fighter was hit by ground fire as he made a low bombing run at about 350 mph. While trying to regain control, he collided with a telegraph pole at a height of about 20 ft, which sliced off three feet of the Panther's right wing. Armstrong flew the aeroplane back to friendly territory, but due to the loss of the right aileron, ejection was his only safe option. He planned to eject over water and await rescue by US Navy helicopters, and therefore flew to an airfield near Pohang. However, he was blown back over land while still beneath his parachute, and a jeep driven by a roommate from flight school duly picked Armstrong up when he landed.

The remaining two Panthers lost by VF-51 in September 1951 were written off on the 16th when an F2H-2 crash-landed aboard *Essex*. Two more Banshees were also destroyed in this accident.

By late 1951 rising loss rates for all types of US Navy aircraft prompted strike planners to begin working on a strategy to deploy F9Fs, ADs and F4Us against targets simultaneously. Until then many of the deep strikes involved just one aircraft type, in squadron strength, with USAF F-86s flying top cover. The Sabres helped keep the MiG-15s at bay but did nothing to reduce the loss rate caused by the large-calibre automatic weapons protecting the most valuable targets in North Korea. This new strategy reduced losses, while still ensuring that high-value targets were destroyed. It would also lead to some of the most significant missions of the war, at least in terms of media coverage, and inspire the motion picture *The Bridges at Toko-ri*.

There were in fact no bridges in North Korea with that name, but there were structures spanning the neck of the Korean peninsula and the trans-peninsula railway. And this was the objective of the new form of coordinated attack. In late November novelist James Michener arrived on board *Essex* to begin a six-week visit. During this time the author of the original story on which the film was based sat in on the planning and briefings for the integrated air strikes being performed by CVG-5. And the missions flown from *Essex* were unique in one important respect – its carrier air group featured two types of jet fighter aircraft.

As previously mentioned, when CVG-5 had been preparing for its combat cruise back in California, F9F squadron VF-52 had been withdrawn to be replaced by VF-172 and its brand new McDonnell F2H-2 Banshees. This left the seasoned VF-51 still equipped with the Panthers.

The bridge attacks would be carried out by both jet types in CVG-5, along with piston-engined F4U-4/4Bs and AD-2/3/4s. Lt Ken C Kramer was one of VF-51's F9F pilots, and he participated in some of the first attacks on the bridges;

'The concept that made the first coordinated strike so successful was the use of jets – F9Fs

**A pair of Panthers from VF-51 perform an escort mission for an F9F-2P of VC-61 Det B in the autumn of 1951. The jet furthest from the camera is being flown by 21-year-old Ens Neil Armstrong, who subsequently became the first man to set foot on the moon. Making his combat debut on 29 August 1951, Armstrong was shot down by AAA just five days later. By the end of the cruise he had flown 78 missions over Korea for a total of 121 hours in the air. Armstrong received the Air Medal for 20 combat missions, a Gold Star for the next 20 and the Korean Service Medal and Engagement Star (US Navy)**



and F2Hs – in conjunction with the Skyraiders and Corsairs. Up to that point this had never been done because the jets operated to a totally different schedule. We didn't have air-to-air refuelling in those days so a Panther mission might last only 1.5 hours. On the other hand, the prop aircraft could remain in the air for at least four hours. Scheduling this type of coordinated attack required an enormous amount of detailed planning. All three squadrons had to arrive over the target at the same time.'

The AD Skyraiders were the slowest aircraft involved, so they would launch first, with the F4U Corsairs close behind. Last to take off would be the F9Fs and F2Hs. Each jet was armed with 260-lb fragmentation bombs, these weapons being used to neutralise the myriad gun emplacements defending the bridges. Knocking out the anti-aircraft artillery (AAA) was crucial to the success of the mission, as it would mean that the vulnerable bombers would have a safer run in to the target.

Although it might have seemed more logical for the faster Panthers to have been armed with the bigger bombs, the F9F-2s were underpowered, and this made it difficult for them to launch from a short carrier deck with a heavy bomb load. The two US Marine Corps Panther squadrons in Korea at that time could carry bigger bombs, however, because they were land-based and operated from longer runways, but the US Navy Panthers had to depend on the hydraulic catapults equipping their carriers at that time. A standard bomb load for VF-51's F9F-2s on a typical bombing mission was four 250-lb GP or four 260-lb fragmentation bombs.

The new tactics worked to perfection against the heavily defended bridges, and from that point on strikes on flak batteries protecting these high-value targets were always made by F9Fs carrying four fragmentation bombs.

During the briefings for the bridge missions the F9F pilots were given high-resolution photographs of the targets, with the anti-aircraft gun positions clearly marked. Each pilot would be assigned a specific number of emplacements to destroy. Key landmarks were indicated to guard against mistakes. The planning for the gun emplacement attacks was intended to be so precise that no battery would be left untouched. These photographs accompanied the pilots so that once the Panthers arrived overhead the target they were better able to identify their assigned batteries. They duly made their attacks before the ADs and F4Us began peeling off for their bomb runs on the bridges. In many cases Corsairs were assigned to follow the Panthers attacking the guns.

For these missions it was standard procedure to use two to three divisions of F9Fs with four aircraft in each. This put at least 12 jets loaded with four fragmentation bombs against one bridge complex. Where intelligence photographs showed a cluster of gun emplacements in close proximity it was considered that they could be neutralised by the air burst from just one bomb. This new tactic left nothing to chance. Lt Kramer describes an early bridge attack mission flown from *Essex*;

'Once we got over the bridges the flak was extremely heavy – they were throwing everything they had up at us. Normally, we made only one bomb run as a result, and they were far more dangerous than at any other target. I believe there were about 20 bridge complexes in the general area we attacked. This group of rail bridges became known to the public as "Toko-ri". There was never any doubt that the big

prop-driven AD Skyraiders were the Navy's only aircraft able to destroy the bridges because they carried the big 2000-lb blockbuster bombs. They came in so low before dropping their ordnance that they were sitting ducks because they were so close to those gun batteries. The new tactics we used saved a lot of them to fight another day. If they'd taken on the mission by themselves many wouldn't have returned to the carrier.'

USAF reconnaissance records for the last six months of 1952 show that the volume of road traffic increased significantly after the rail bridges were destroyed.

## B-29 ESCORTS

There were some occasions when the F9Fs were tasked with protecting B-29s bombing targets in 'MiG Alley'. Usually, these daytime missions were escorted by F-86s from either the 4th or 51st Fighter Wings, but on 25 August 1951 *Essex's* carrier air group was ordered to support a major bombing effort against high-value targets in the Rashin area in the extreme northeast of North Korea, bordering China and the USSR. This was out of range for the Sabres flying in 'MiG Alley', situated in the extreme northwest of the peninsula. CV-9's Panthers and Banshees were launched to escort the Superfortresses on a series of dangerous daylight attacks on these targets. Encounters with Russian MiG-15s were expected.

The plan was for the US Navy jets to rendezvous with the bombers at 25,000 ft some 80 miles south of Rashin. Clear weather with unlimited visibility was forecast for the morning of 25 August as *Essex* launched 11 Panthers from VF-51 and 12 Banshees from VF-172. They were led by Cdr Marshall U Beebe, commander of CVG-5, and both squadron COs were also airborne. The jets met the B-29s exactly as planned. The strategy was for the F2Hs to fly top cover above the bombers while the Panthers flew at lower altitude. The jets continued to weave to maintain airspeed in case they were jumped by MiGs, but the formation crossed the coast and turned towards Rashin without sighting enemy fighters. Each B-29 lined up its target and dropped 20,000 lbs of bombs, the weapons being well placed. Considerable damage was done to the targets, and this was confirmed by post-strike photographs. It had been one of the most effective bombing missions of the war to date. All fighters returned safely to *Essex*.

In early September 1951 USS *Antietam* (CV-36), with CVG-15 embarked, left Hawaii to begin its only cruise of the war. Replacing *Boxer* within TF 77, the vessel would commence combat operations in mid-October and remain in-theatre until late March 1952. Its carrier air group included two Panther squadrons, VF-831 (with F9F-2s) and VF-837 (with F9F-2Bs), together with single units equipped with F4U-4s and AD-4/4L/4Qs.

VF-51's Ens Herb Graham carefully climbs out of the cockpit of his F9F-2 after completing yet another mission from *Essex* in late 1951. Note that both Graham and the sailors working on his jet (the two to the right of the pilot are topping off the contents of the Panther's forward fuel tank) are wearing cold weather clothing (Frank Jones)





**USS *Antietam* (CV-36) is seen at anchor during a port call in Japan after being withdrawn for replenishment and R&R during its 1951-52 cruise. The F9F-2B Panthers seen parked on the fantail of the vessel were from VF-831 and VF-837. *Antietam* made just one deployment to Korea, and during that cruise it spent four periods with TF 77 in the combat zone. In between fighting assignments, it returned to Yokosuka, Japan. From late November 1951 to mid-March 1952, CV-36's CVG-15 flew nearly 6000 sorties. The carrier returned to Yokosuka on 21 March 1952 at the conclusion of its fourth spell on the line with TF 77 to commence preparations for the vessel's voyage back to the USA (National Archives)**

Three detachments operating night-capable Corsairs and Skyraiders, a fourth flying F9F-2Ps and a fifth equipped with HO3S-1 helicopters completed CVG-15. Both VF-831 and VF-837 were US Naval Reserve units that had been called to active duty on 1 February 1951.

With such a large number of Panthers within its ranks, CVG-15 was able to launch plenty of armed reconnaissance missions against enemy road transport targets heading south from Manchuria. Autumn, with its unpredictable weather, was not far off, however, so

the window for offensive sorties was a narrow one. Indeed, the average number of sorties per day quickly fell from 75 to just 28.

Tragedy struck the carrier air group on 4 November when VF-831 pilot Lt G S Brainard attempted to land his Panther but failed to catch an arresting gear wire. This sent him through the barriers and straight into several parked aircraft on the forward flightdeck. He was killed, and so were three other men working in that area. Flight operations were suspended for the rest of the day as the debris was removed. The weather finally cleared on 10 November, enabling CVG-15 to fly the maximum number of planned missions. This resulted in 76 sorties being completed and 35,000 rounds of ammunition expended. Both Panther squadrons accounted for a significant percentage of this total while executing their armed reconnaissance duties.

From 15 October through to the end of November VC-61 Detachment D managed a total of 70 sorties with its F9F-2Ps. They were escorted by F9F-2/2Bs on all but one of their missions. The two strike squadrons also fired 38,000 20 mm rounds, 543 HVARs, 163 ATARs and dropped 546 100-lb bombs during this period. By the time the cruise ended in May 1952 VF-831 had lost just a single jet while VF-837 had suffered two casualties – none of these aircraft had crashed as a result of combat. The number of sorties flown due to poor weather conditions during the winter of 1951-52 meant that losses were extremely light. Many F9Fs, however, struggled back with heavy battle damage and were saved by the flightdeck barriers.

In the last 60 days of *Antietam*'s cruise the enemy's defence of key targets changed dramatically. Prompted by the US Navy's intensive attacks, the Chinese brought in more large-calibre automatic anti-aircraft weapons to defend high-value assets like bridges, railway junctions and supply and ammunition dumps. Previously, F9Fs had been able to inflict maximum damage by making individual runs for each bomb dropped, which enabled multiple attacks on particular targets to be made by the same division. Now, with the increased number of gun batteries, the strike aircraft of CVG-15 were only able to make one run against a single target, dropping all their weapons on that pass. This gave each Panther a better chance of returning to the carrier, but the number of targets destroyed began to decline –

an increased number of flak suppression missions had to be flown by both F9F squadrons.

Despite flying more missions, both squadrons enjoyed a remarkably low loss rate. This was an impressive achievement considering that VF-831 logged a total of 2079.3 flying hours and VF-837 recorded 2040.9. These totals meant that each pilot averaged slightly over 100 flying hours for the whole cruise. Comparable figures for the Corsair and Skyraider units were considerably higher however.

Lt George Schnitzer undertook two tours as a Panther pilot in the Korean War, his first being aboard *Antietam* with VF-831. Having flown a considerable number of flak suppression missions from CV-36, Schnitzer was fulsome in his praise of the F9F in this role;

‘The F9F was an extremely effective flak suppression weapon, its four 20 mm cannon making the fighter invaluable for any coordinated strike. It was a natural for this mission, supporting the prop-type bombers against well-defended targets. As the prop aircraft initiated their attacks we dived down to drop our 260-lb fragmentation bombs. After bomb release we would pull up sharply, and at the top of the climb a 90-degree banked turn would be made. We would then reverse direction so as to come back around for a diving firing run against the AAA gun emplacements as the F4Us and ADs were completing their drops and recovering prior to leaving the target area. If all went well, we would have neutralised most, if not all, of the defending guns.’

These tactics were standard procedure for every F9F squadron during the Korean War.

Lt Schnitzer recalled participating in a particularly dangerous mission in a VF-831 jet that involved an attack on troops, rather than the usual gun emplacements;

‘The real concern for me was the amount of flak we could expect. Our course would put us way above the bomb line [of the F4Us and ADs] and away from the heavy guns in and around Pyongyang. We launched at dawn, and by the time we approached our target the deep valley in which it was located was just starting to be bathed in early morning sunlight. So far the flight had gone as planned, but with one exception. We had not flown far enough north of Pyongyang, so we started receiving heavy calibre fire from the gun emplacements that ringed the city. Those big black air bursts were not pretty against the blue morning sky.

‘Reaching the pushover point, we set up our tactical formation and went down into the valley. Our flight leader was the low man, flying at 500-800 ft above the valley floor looking for targets. He soon spotted some enemy troops marching in columns on either side of the road well ahead of us. He called them out for us so that we could set up a strafing pass. This was the real thing! Following the other three jets in, I dropped my nose and jammed the throttle forward to 100 per cent power. With the airspeed increased, I banked the plane to line up my gunsight on the last man in the column.



A pilot from VF-831 poses beside his F9F-2 after a harrowing mission in late 1951. He encountered intense heavy-calibre groundfire that shot the tip off his aircraft's vertical stabiliser. Despite the damage, the unnamed pilot was able to land back aboard *Antietam*. BuNo 127149 was quickly repaired and sent back into action. The Chinese deployment of sophisticated anti-aircraft guns in defence of key transport routes during the autumn of 1951 greatly increased the potential for such damage to be inflicted on Panthers during low-level attacks. Indeed, in October 1951 alone ten F9Fs limped back to *Antietam* after they had sustained heavy battle damage, although they were quickly repaired and returned to service. Most had suffered damaged wings and vertical stabilisers (as seen here), although in one case the aircraft had sustained a holed nose and shattered windscreen (*National Archives*)

VF-111 pilots pose for a photograph at NAS Miramar, California, just a few days before embarking on *Valley Forge* in October 1951 for a combat cruise that would last until early July 1952 (the squadron embarked 25 pilots and 16 jets in CV-45). Although VF-111 suffered only a single fatality during the cruise, the Naval Aviator lost was its CO, Cdr Frank Welch Jr. His aircraft crashed into the sea from the landing pattern (Tailhook Association)

‘The flight leader and his wingman started firing. Seconds later dust kicked up as his rounds smashed into the line of troops. As the others in his flight finished their runs it was our section’s turn to press home the attack. Squeezing the trigger, I was startled by the sound of my guns and the smell of the cordite picked up by the cockpit air-conditioning system. I only had time for one quick burst and then a fast high-“G” climbing turn while trying to stay with my section leader. Glancing back in my rear view mirror, I could see that we had hit them hard. They hadn’t heard us coming, and the strafing left countless bodies lying on the side of the road.

‘We kept on going in the hope of finding more targets, but the roads were empty. On the way we flew over the town of Kosan, or what was left of it. Minutes later we were approaching the Wonsan harbour area near Anbyon, where there was a suspected storage complex. We fired our rockets into it but I didn’t see any secondaries. By this time we were at bingo fuel, so we headed back to the carrier. This mission had been different because we didn’t usually see what our 20 mm rounds could do to people. That sight made me realise that we were in the middle of a bloody war.’

*Valley Forge* commenced its third combat cruise with TF 77 in December 1951, the vessel replacing *Bon Homme Richard*. The carrier had Air Task Group (ATG) 1 embarked. Air task groups were an expedient forced upon the US Navy by interwar budget cuts. Unable to sustain a full establishment of air groups with permanently assigned squadrons, the flying admirals played ‘mix and match’ by periodically assigning units to an ATG. The advantage was that, as in Korea, air groups could be customised to suit the most likely operational requirements. ATG-1 included both VF-111 and VF-52, and their F9F-2/2Bs, within its ranks.

The ship had reached Yokosuka, Japan, on 4 December, and the next day a pilot from each squadron was sent over to *Essex* to fly a series of familiarisation combat missions. By 8 December CV-45 was on station, and it commenced operations against the rail networks in the northeastern sector of North Korea. As per usual for Panther units in-theatre, VF-111 and (continued on page 47)



## COLOUR PLATES

1

F9F-3 BuNo 123071 of VF-51, USS Valley Forge (CV-45), July 1950



2

F9F-2B BuNo 123511 of VF-112, USS Philippine Sea (CV-47), September 1950



3

F9F-2B BuNo 123497 of VF-31, USS Leyte (CV-32), November 1950



4  
F9F-2 BuNo 127184 of VF-111, USS *Philippine Sea* (CV-47), November 1950



5  
F9F-2B BuNo 123657 of VF-721, USS *Boxer* (CV-21), April 1951



6  
F9F-2B BuNo 123633 of VF-191 USS *Princeton* (CV-37), May 1951



7

F9F-2P BuNo 123615 of VC-61 Det E, USS *Princeton* (CV-37), May 1951



8

F9F-2 BuNo 127207 of VMF-311, Pohang (K-3), August 1952



9

F9F-2 BuNo 127174 of VF-111, USS *Valley Forge* (CV-45), March 1952





10  
F9F-2 BuNo 125088 of VF-831, USS *Antietam* (CV-36), March 1952



11  
F9F-2B BuNo 123702 of VF-781, USS *Bon Homme Richard* (CV-31), November 1951



12  
F9F-2 BuNo 125122 of VF-51, USS *Essex* (CV-9), September 1951

13

F9F-2B BuNo 125096 of VF-837, USS *Antietam* (CV-36), February 1952



14

F9F-2 BuNo 123073 of VF-52, USS *Boxer* (CVA-21), June 1953



15

F9F-2 BuNo 127173 of VF-111, USS *Valley Forge* (CV-45), May 1952





16  
F9F-2 BuNo 127219 of VF-24, USS Boxer (CV-21), May 1952



17  
F9F-2 BuNo 122585 of VF-23, USS Essex (CV-9), October 1952



18  
F9F-5 BuNo 125459 of VF-781, USS Oriskany (CVA-34), November 1952



19  
F9F-5 BuNo 126034 of VF-781, USS *Oriskany* (CVA-34), November 1952



20  
F9F-2B BuNo 125117 of VF-721, USS *Kearsarge* (CVA-33), December 1952



21  
F9F-2 BuNo 123460 of VF-71, USS *Bon Homme Richard* (CV-31), July 1952

22 F9F-2 BuNo 123575 of VF-72, USS *Bon Homme Richard* (CV-31), November 1952



23 F9F-2 BuNo 123704 of VF-93, USS *Philippine Sea* (CVA-47), June 1953



24 F9F-2 BuNo 123585 of VF-91, USS *Philippine Sea* (CVA-47), June 1953



25  
F9F-2B BuNo 123451 of VMF-311, Pohang (K-3), May 1952



26  
F9F-5 BuNo 126039 of VF-122, USS *Oriskany* (CVA-34), February 1953



27  
F9F-5 BuNo 126109 of VMF-311, Pohang (K-3), February 1953



28

F9F-2 BuNo 127143 of VMF-115, Pohang (K-3), March 1953



29

F9F-4 BuNo 125164 of VMF-115, Pohang (K-3), March 1953



30

F9F-5P BuNo 126271 of VC-61 Det D, USS *Princeton* (CVA-37), April 1953





**31**  
F9F-5 BuNo 126652 of VF-153, USS *Princeton* (CVA-37), May 1953



**32**  
F9F-5 BuNo 125644 of VF-111, USS *Lake Champlain* (CVA-39), July 1953



**33**  
F9F-2 BuNo 123583 of VF-151, USS *Boxer* (CVA-21), July 1953



F9F-2s are seen here chained down close together on the flightdeck of *Valley Forge* as it sails from Japan to its station off the North Korean coast during its 1951-52 cruise. The Panthers assigned to VF-52 displayed the tail code 'S' (and white fin/rudder markings) while sister-squadron VF-111 marked its jets with a 'V' (and red tail markings), although all the Panthers in this photograph inexplicably wear 'S' codes! This was the second Korean War cruise for both units, and they would return for a third combat deployment (again with ATG-1, but this time embarked in *Boxer*) in the spring of 1953 (Frank Jones)

A Panther from VF-112 makes a perfect approach on short finals for recovery back aboard *Philippine Sea* after a long mission over North Korea in early 1952. The squadron, which formed part of CVG-11 during the ship's 1951-52 cruise, did not lose a single jet throughout the seven-month deployment (Ace Jewell)



VF-52 were tasked with protecting the bombers and attacking vehicles travelling along the north-south roads. During this five-week period the F9Fs fired more than 150,000 20 mm rounds and 300 rockets. A total of 16 Panthers sustained battle damage, and VF-52 lost three fighters and VF-111 one – only one of these was due to enemy action, however. The damaged jets were able to make it back to *Valley Forge* or to a friendly South Korean base.

From February 1952 the Chinese increased the tempo of their re-supply efforts by road, and also

equipped more flak batteries with high-calibre anti-aircraft guns. Even with both of ATG-1's F9F units engaged in flak suppression, the F4U-4/4Bs of VF-653 and the AD-2/3s of VF-194 suffered considerable battle damage. The Panther units also sustained a number of losses, with VF-52 losing five jets between 19 February and 2 May and VF-111 two aircraft (both on 2 May). The enemy now had the ability to make most of their gun emplacements mobile, which rendered many of the images taken at great risk by the photo-reconnaissance F9F-2Ps (and, latterly, F2H-2Ps) of VC-61 Det H inaccurate.

The railway line from Hamhung south to Wonsan became a priority target at this time. ATG-1 records, however, state that most of the damage it inflicted was repaired within 24 hours. The workload placed on the trio of VC-61 Det H F9F-2Ps in particular was tremendous, as ATG-1 required up-to-date photography that revealed the operational state of the line.

Between 11 December 1951 and 10 June 1952 the two F9F squadrons logged a combined total of 3371 sorties, with VC-61 adding another 296 (it also lost an F9F-2P on 11 March). Towards the end of this reporting period the photographic detachment was progressively re-equipped with newer and faster F2H-2P Banshees.

*Philippine Sea* returned for its third deployment of the war in late January 1952, the vessel having CVG-11 embarked once again – the carrier air group had first seen action from CV-47 in the late summer of 1950. VF-112 was also still assigned to CVG-11, the unit making its



second Korean War deployment with F9F-2s. Remaining in-theatre until early July 1952, the carrier had had to spend a week in Yokosuka undergoing repairs to storm damage that had been sustained during the voyage over from California. Naval Aviators from CVG-11 used this downtime to meet with pilots from *Valley Forge's* ATG-1 and discuss combat tactics.

Finally arriving off the coast of Korea, CVG-11 quickly made up for lost time from 31 January. Most of VF-112's 16 Panthers were in the air every day from then on, and by 19 February they had fired more than 40,000 20 mm cannon rounds and dropped a significant percentage of the 1072 fragmentation bombs and the 1069 250-lb GPs expended by the group as a whole. This included weaponry used on flak suppression and rail and road interdiction missions. During this period VC-61's Detachment C flew 53 photo-reconnaissance missions, mostly in the post-strike role. In mid-March the number of F9F-2s assigned to VF-112 rose to 17.

One of the biggest days for CVG-11 came on 27 March when all of its serviceable aircraft were up, logging 97 sorties in total. Every available Panther was airborne too, and by the end of the day 6500 20 mm cannon rounds had been expended. April proved to be the busiest month, and the stress on the armourers reached high levels because the turnaround times between missions was so quick. The F9F-2s expended 66,000 20 mm rounds and dropped 914 bombs.

Between 27 March and 15 April 12 of VF-112's Panthers had sustained battle damage, but they were all able to fly again. Eight had been hit by small arms fire during low-level strafing and bombing runs, while the remaining four had been struck by heavy-calibre flak while covering the bomber force. Statistics released by CVG-11 for the same period showed that the F9F unit completed 210 CAP sorties and 196 armed reconnaissance missions, as well as 61 escort missions for the F9F-2Ps of VC-61 Det C. Considering the number of hits its jets sustained and the high tally of sorties involved, the unit survived this period of intense operations in good shape, having not lost a single jet – indeed, VF-112 completed the cruise without losing an aircraft.

**A VF-24 Panther is attached to one of *Boxer's* catapults ready for launch on a CAP over the task force. Such missions were necessary to protect the carrier when it was at its most vulnerable whilst operating off the coast of North Korea (Guy Lyons)**

Five weeks after *Philippine Sea* joined TF 77 *Boxer* arrived off Korea too, having left California on 8 February 1952. On board was the combat seasoned CVG-2, which was making its fourth combat deployment since September 1950 (when it was again embarked in CV-21). For the very first time, the carrier air group also included a single squadron of Panthers within its ranks, VF-24 having swapped its F4U-4s for F9F-2s (the unit still retained its 'Corsairs' nickname, however) since it was last in combat 12 months earlier. Three F9F-2Ps from VC-61 Det A were also embarked for photo-reconnaissance duties.

CVG-2 probably experienced more inclement weather during this cruise than any other carrier air group in the Korean War – even those that conducted operations during winter months. Having spent several weeks off Hawaii undergoing extensive training based on the missions they could expect to fly in combat (this applied particularly to VF-24 with its multiple-mission role), the carrier finally got into position off North Korea in late March. All available aircraft were launched on CVG-2's first combat mission on 31 March.

A milestone was reached on 26 April when VF-24's Ens Herman Radtke took off from *Boxer* to mark the carrier's 12,000th catapult launch. On the 29th VF-24 enjoyed one of the best days of its deployment when it launched 20 offensive and 16 defensive sorties. The turnaround time between flights was short thanks to the aircraft remaining serviceable throughout the day. Weather conditions earlier in the month had continually hampered air operations, however. Most of CVG-2's combat time on station came during the warmer summer months, but the increase in temperature also triggered the monsoon season, which delayed operations for days. Finally, *Boxer* also had to contend with Typhoon 'Mary', and its 60-knot winds.

CVG-2 combat logs noted that on several occasions VF-24 Panthers, with their Mk 55 ordnance racks, returned from missions with hung-up 250-lb bombs. In most cases the bombs dropped following tailhook deployment. In one case, however, a 250-lb bomb became armed after travelling about 500 ft along the deck. It came to rest only after striking an aircraft near the forward aircraft elevator. It did not explode.

During the cruise VF-24 lost two Panthers, only one of which was due to enemy action. Four more F9F-2s suffered heavy damage from shrapnel during attack missions, but they were able to return to the ship. A large number of aircraft were damaged or destroyed in an accident on 6 August, however. A fuel tank within an F9F that was chained down in the carrier's hangar deck exploded, causing a fire that destroyed four Panthers and two Corsairs. Nine personnel also lost their lives in the blaze.

In the aftermath of this deadly blaze VF-24 was severely restricted in the number of targets it could attack during the final weeks of the deployment. Indeed, from 6 August through to 6 September, when *Boxer* left TF 77, the unit only expended 2920 20 mm rounds and 23 5-in ATARs in combat.

**On 6 August 1952 a fuel tank within an F9F that was chained down in *Boxer's* hangar deck exploded, causing a fire that destroyed four Panthers and two Corsairs. Nine personnel also lost their lives in the blaze. Here, ordnancemen strip out live 20 mm ammunition from a badly damaged F9F, while firefighters bring the blaze under control. In the aftermath of this deadly fire VF-24 was severely restricted in the number of targets it could attack during the final weeks of CV-21's deployment (US Navy)**



# MORE MISSIONS AND MORE MiGS

**P***rinceton* sailed in Korean waters from mid April to mid October 1952, the vessel undertaking its third combat cruise of the war.

And as with its previous two deployments with TF 77, it had CVG-19 embarked. The ship was stationed off Korea's northeastern coast, close to what was becoming the area through which the enemy's main supply line ran. This remote part of the country was also out of range of many of the USAF's fighter-bombers.

VF-191, which was the carrier air group's sole Panther squadron, suffered its first loss on 14 June when one of its aircraft was hit by ground fire while attacking a target. The stricken fighter failed to pull out of its dive and exploded on impact with the ground. Six days later a VF-191 pilot suffered a cockpit malfunction in his jet immediately after launch, leaving him with no option but to ditch. He was soon rescued from the sea.

In July the number of missions flown by CVG-19 against heavily defended targets in Pyongyang, as well as the Chosin Number One hydroelectric plant, increased. This put pressure on VF-191, which was engaged in flak suppression duties. Up to 12 Panthers were committed to each mission to neutralise the numerous gun positions protecting these high-value targets. In an effort to improve the quality of the images of the flak batteries being targeted, and thus enable the Panther pilots to better determine exactly which gun emplacements they were to attack, VC-61 Det E also raised its sortie tempo.

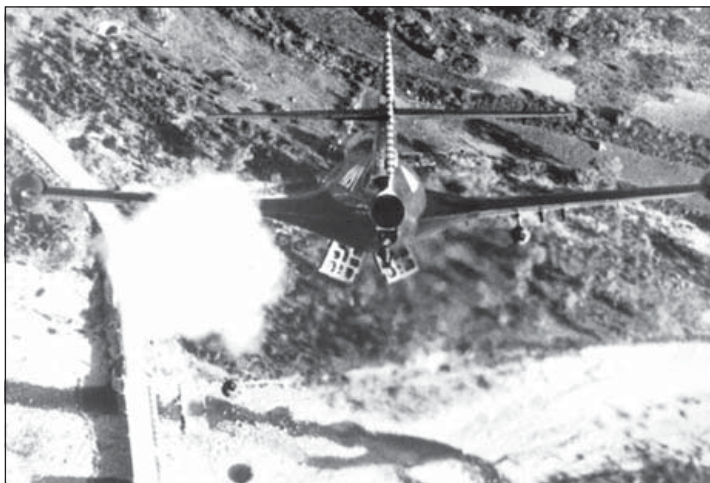
The most important contribution made by the F9Fs to full-strength strikes such as those performed by CVG-19 was flak suppression. A typical strike force usually involved ten Corsairs, ten Skyraiders and eight Panthers. As the bombers entered the target area at an altitude of 12,000 ft, the F9Fs would be at least 5000 ft above them. Once the bombers were ready to commence their attack, the Panthers would come down at full speed to neutralise the flak emplacements before the Skyraiders and Corsairs came within range of the enemy gunners.

On 20 August CVG-19 launched a major strike against an important enemy supply area in Changp'yong-ni. The target was within range of a key MiG-15 base, so VF-191 despatched all of its

Some Panthers that sustained battle damage over their targets were able to return to their carriers, but safe deck landings often proved to be more difficult. As a result, many F9Fs and their pilots were saved by the crash barriers. In this dramatic action photograph, a VF-191 Panther is heading for *Princeton's* barrier during the vessel's 1952 combat cruise. Note that both the deckcrew and the pilot, hastily climbing out of his recently recovered jet, are getting ready to take cover – the crash barriers occasionally failed, leaving jets to run into aircraft parked on the bow of the ship (*Wayne Russell*)



Lt R P Yeatman of VF-71 has just fired the HVAR rockets under the left wing (hence the smoke) of his F9F-2 during a diving attack on a bridge in late November 1952. A solitary 250-lb bomb is visible attached to the inner stores pylon beneath the jet's right wing. The pilot has extended the aircraft's dive brakes so as to keep his speed in check during his attack run. VF-71 had an outstanding record during its time off the North Korean coast, despite facing harsh winter weather that aided Chinese forces as they prepared for an offensive. In late November 1952 conditions improved sufficiently for VF-71 to focus on targets in so-called 'Cherokee strikes' that earned the unit high marks for both coverage and effectiveness, considering the poor flying weather. The unit's Panther pilots were especially commended for their attacks on vehicles left exposed and damaged by night attacks (Jim Barnes)



serviceable F9F-2s to provide close escort for the bombers, while F-86s covered the strike from high altitude. The F4U-4s and AD-4/4Ns struck their targets, and as they were withdrawing from the area they were jumped by six MiG-15s that had evidently come in below the Sabre CAP. The communist jets were in turn engaged by 12 Panthers, and after five minutes of dogfighting the MiG-15s broke off, enabling the strike force to return to the carrier intact.

Aside from providing effective fighter escort for CVG-9's Corsairs and Skyraiders, the Panther pilots also employed sound flak suppression tactics. As a safety measure, the F9F-2s were followed over the gun batteries by F4U-4s, the bent-wing piston-engine aircraft making additional strafing attacks on the gun positions to ensure that they were silenced.

Towards the end of the deployment, *Princeton's* aircraft began conducting CAS missions for troops in the frontline. Again, the results achieved by VF-191 were good. In October the focus shifted back to targets far to the north, and during each of these attacks the carrier-based aircraft encountered large numbers of MiG-15s. There were so many, in fact, that it was impossible for the F-86s to contain them all. Those that evaded the Sabres then had to face the Panthers' 20 mm cannon. Most of these fights developed over the Wonsan and Hungnam areas.

Two months after *Princeton* came on station *Bon Homme Richard* sailed into Korean waters to begin a deployment with TF 77 that would last from 21 June through to 18 December 1952. Although CV-31 was making its second, and last, Korean War cruise, its embarked carrier air group, CVG-7, was new to the conflict. Its two Panther squadrons, VF-71 and VF-72, each had a complement of 16 aircraft and 24 pilots. The group also included VC-61's Detachment N, with a mixed fleet of F9F-2Ps and F2H-2Ps.

CVG-7 was combat-ready in time for the four carrier strikes on North Korea's hydroelectric plants, which commenced on 23 June with an attack on the Kyosen Number Two Plant, 30 miles northeast of Hamhung. *Bon Homme Richard's* carrier air group contributed at least seven Panthers to each strike, and by dusk on the 23rd the two F9F units had logged 20 CAP missions. The target for the following day was Kyosen Number Four Plant, six miles inland from Tanchon. This strike resulted in the facility's complete

destruction. Anti-aircraft fire was very light and there were no losses. VF-71 and VF-72 logged a total of 32 CAP sorties, and the photo detachment came back with excellent post-strike imagery. During this period of daily strikes the F9F-2s fired a total of 11,298 20 mm rounds and dropped 106 250-lb GP bombs. The latter were mostly used for flak suppression, as weapons that small would have been ineffective against the hydroelectric plants' thick concrete walls.

With the capacity of these facilities considerably reduced,

CVG-7 switched to attacking other assigned targets for the rest of the summer and autumn. Its F4U-5N and AD-4NL night hecklers were also kept busy, as the Chinese were now being forced to move more of their supplies after dark. On 9 December CVG-7 was ordered to attack a major rail complex and repair facility in the northeastern corner of Korea near Musan. Two strikes were made that day, and by late afternoon the entire complex was reported to be 90 per cent destroyed. The F9Fs had been active providing the attack aircraft with flak suppression through strafing and the dropping of 250-lb GP bombs. Records state that a building capable of housing 20 locomotives was demolished, three key repair shops were levelled and seven to 14 locomotives destroyed.

The Panthers and Skyraiders in the second strike on the complex followed the railway lines leading from the area and cut them in several places. This operation proved to be one of the most important missions of the carrier's entire cruise, and earned the personnel involved a commendation from the commander of TF 77.

Sorties flown in November and December took the Panthers close to the Chinese-Soviet border. On at least four occasions numerous unidentified swept-wing jets and contrails were sighted, but no communist aircraft came within range of the F9Fs' guns. The nearest bandits were reported over the port city of Wonsan, and they were close enough to the Panther pilots to enable them to positively identify the jets as MiG-15s. At that point they were still some 75 miles from TF 77 vessels sailing off the coast of North Korea.

As a result of this ever-present threat, Panther pilots conducted daily practice interceptions on returning strike and photo-reconnaissance flights. However, pilots were hampered by a lack of accurate information on the altitude of their 'opponents'. This made it virtually impossible to make a successful interception. Future naval fighters would need radar equipment capable of producing rapid and accurate altitude information about contacts at a greater range than was then possible. Such information was necessary if carrier-based aircraft were to provide an effective defence of the task force.

By the time CVG-7 left TF 77 in mid-December, VF-72 had lost three Panthers and VF-71 one – only one of these machines fell to enemy fire. There were numerous reports of battle damage inflicted by flak, but all aircraft concerned were able to return to the *Bon Homme Richard* or reach friendly airfields.



A four-ship division of Panthers from VF-71 and VF-72 forms up after launching from *Bon Homme Richard*. The aircraft were en route to North Korea on a strike mission during the late autumn of 1952. BuNo 123418 of VF-72 is armed with two 500-lb high explosive bombs and a single 100-lb general purpose bomb under each wing. Priority targets assigned to carrier-borne aircraft at this point in the conflict were the coastal roads, which carried heavy traffic especially during the hours of darkness. Many of the Panther missions were planned to reach the target area at first light so as to catch any stragglers (George Clare)

F9F-2 BuNo 127180 of VF-71 was assigned to Ens George Clare during the unit's solitary combat deployment as part of CVG-7 embarked in *Bon Homme Richard* in 1952. The significance of the rain cloud and acronym BLPFSTK have been sadly lost over the intervening decades (George Clare)





**Essex made two combat cruises off the coast of North Korea, embarking ATG-2 for the second of these deployments in 1952-53. This air task group included two F9F-2 units within its ranks, namely VF-23 and VF-821. Here, an aircraft from the latter unit suffered damage when it 'took the barrier' after having been hit hard by AAA while making a low-level strafing run on an ammunition dump during the late summer of 1952. Its pilot was able to return to the carrier but needed help in recovering back aboard ship due to partial hydraulic system failure. When attacking well-defended targets in North Korea Panther squadrons ensured that only one run would be made, with approach altitudes varying between 10,000 ft and 20,000 ft. Coming out of the sun, a dive angle of 35 to 40 degrees was used, usually with good results (Jim Dodge)**

*Essex* started its second, and final, cruise of the war on 16 June 1952. The carrier deployed with ATG-2 embarked, its two F9F-2 squadrons being VF-23 and VF-821. The latter unit had seen combat in Korea in F4U-4s 12 months earlier, flying alongside VF-23 from *Princeton* with CVG-19. ATG-2 records show that the ship did not leave Subic Bay until mid-July, and that the first combat missions were flown on the 19th of that month. A total of 16 photo-reconnaissance sorties were flown that day by F2H-2Ps escorted by F9F-2s, but it was not until 1 August that the first full group-strength missions began. Over the following days ATG-2 concentrated on the Hamhung area, where it met intense anti-aircraft fire. This was in spite of intensive flak suppression missions flown by both Panther squadrons, which were considered to be highly effective. The fast, low-level firing passes made by the F9F pilots saw them neutralise numerous gun batteries without suffering any losses.

Records for August show that *Essex's* Panthers flew 246 strike and 112 armed reconnaissance sorties, as well as 360 CAPs. When all missions flown by VF-23 and VF-821 were combined, the two units flew a staggering 829 sorties during that month. This meant that each Panther pilot averaged 17.2 sorties, totalling 27.7 flying hours each. Furthermore, not a single F9F was lost, either in combat or operationally, in August.

ATG-2's combat reports note that the strategy adopted by its Panther units during this period – and adhered to for the rest of the cruise – was that half the offensive missions flown were tasked with flak suppression. The F9F pilots began their attacks from about 15,000 ft, the jets usually attacking just before the Corsairs and Skyraiders started their bombing runs. Sometimes only half the jet force would attack, with the remainder going in immediately after the last of the propeller aircraft had started to pull up from their bombing runs. It was soon found, however, that the most effective flak suppression sorties involved all the jets attacking first.

The mission split for ATG-2's Panther squadrons remained much the same for most of the deployment. Figures for November 1952 show that the F9Fs flew 105 strike sorties, 56 armed reconnaissance missions and 90 CAP sorties. The combined total of just 339 sorties for both squadrons that month was attributed to bad weather as winter set in. US Navy records show that VF-23 lost four Panthers during the cruise, with two being destroyed on consecutive days in November. Two of these losses were in combat. VF-821 completed the deployment without suffering a single loss. F9F maintenance effectiveness diminished in November as VF-23 posted a 92.4 per cent in-service rate compared to VF-821's 93.7 per cent. A combined total of 22,485 20 mm cannon rounds were fired by the two units during the month.

*Essex* was approaching the end of its time on-station when, on 22 December, TF 77 ordered all three carriers then sailing off the east

coast of North Korea to strike and destroy billets, vehicle shelters and construction facilities at Kwangsuwon airfield. The attack force included carrier air groups from *Essex*, USS *Kearsarge* (CV-33) and USS *Oriskany* (CV-34). Five days later two of the carriers dispatched aircraft to attack the main supply routes along the east coast. Throughout the remainder of December and into January 1953, *Essex* launched its bombers and jets to provide CAS for UN forces attacking enemy frontline positions. On 10 January the vessel withdrew to Yokosuka, before heading home to the USA.

TF 77 continued to deploy at least four carriers to attack North Korean targets through to the end of the conflict. *Kearsarge* had CVG-101 embarked when it conducted its sole Korean War combat cruise from 11 August 1952 through to 17 March 1953. The carrier air group's sole Panther squadron was VF-721, which had seen action in Korea with CVG-101 when aboard *Boxer* in 1951. VF-11 was the carrier's other jet squadron, operating F2H-2 Banshees. The group first went into action on 17 September, when its pilots flew 94 sorties. The F9Fs again concentrated on armed reconnaissance missions, and they achieved early success when a division of Panthers stumbled on a radar site southwest of Hungnam. The pilots involved used their 250-lb GP bombs so effectively that post-attack photographs showed the target had been completely destroyed. The following day both Panthers and Banshees were airborne searching for other targets in the same area, but despite clear weather their pilots were unable to find anything worth shooting at.

Group records for the last two weeks of September state that the F9Fs dropped 152 250-lb GP bombs and only 49 260-lb fragmentation bombs. In addition, 228 rockets were fired, together with more than 28,000 20 mm cannon rounds. During the first two weeks of October the Panthers fired 187 anti-tank missiles and 35,483 20 mm cannon rounds in attacks on road and rail traffic.

Although MiG-15s were usually absent during this period, some F4U flights were subject to attacks by the Soviet-built jets. All aircraft returned



Ordnance crews work hard to get aircraft ready for a bombing mission deep in North Korea during the summer of 1952, pushing a 1000-lb bomb past Panthers from VF-821 and VF-23 that have been chained down side by side on *Essex*'s flightdeck. This large weapon is not destined for either jet, however, the 'thousand pounder' being too heavy for carriage by a Panther flying from a carrier. Such ordnance could only be carried aloft by a Skyraider, with VA-55 being equipped with AD-4s within ATG-2. Carrier-based Panthers were usually restricted to smaller 100-, 250- and 500-lb bombs because of the short length of the flightdeck compared to the runways at land bases. Indeed, US Marine Corps F9Fs flying from Pohang (K-3) routinely sorted with 1000-lb weapons attached to their bomb pylons (*Bruce Bagwell*)



Pilots from VF-721 pose for a squadron photograph on the flightdeck of USS *Kearsarge* (CVA-33) during the ship's 1952-53 combat cruise. VF-721 was the sole Panther squadron within CVG-101, the carrier air group also including F2H-2-equipped VF-11 within its ranks. VF-721 lost four jets and one pilot whilst flying with TF 77. Note the USAF exchange officer in the back row, wearing his distinctive blue uniform in a veritable 'sea of green' (*Gene Bezore*)

safely to their carrier, however. The intensity of ground fire varied and, although VF-721 had not lost any Panthers by the end of October, nine of its aircraft sustained battle damage. A CVG-101 report on *Kearsarge's* Panther operations at this time stated;

'The four-aeroplane flight was used successfully by the F9F-2 squadron. When working against defended targets some of the jets tended to get separated. This was quickly rectified so that the pilots were well aware of the position of the other aircraft in their divisions. Several flights were diverted from their strike or recce missions to fly CAPs over the slower bombers when MiGs were in the area. In these cases, there was difficulty in quickly recognising the differences between the F-86 and MiG-15. This brought about a simple change in that at least one division was added to act as airborne lookouts to alert the covering jets at lower altitudes.

'It is believed that the F9F-2 would be more effective as a fighter-bomber if Mk 51 bomb racks were installed. It is anticipated that with the recent sightings of enemy jets in the Wonsan and Hamhung areas that more of the Navy jets will be employed as protective cover escort for the props. When Panthers are employed in this capacity, it is recommended that the Mk 9 rocket launchers be removed from the wings.'

During the bitterly cold weather of December and January VF-721's maintenance personnel kept the in-service rate at about 90 per cent – a little ahead of the Banshee squadron. US Navy figures for December show that VF-721 lost two Panthers, but CVG-101 records for the period admit only one loss, on the 28th, which was attributable to an engine flame-out near the carrier. An engine fire immediately after launching from CV-33 had also caused a Panther pilot to ditch on 23 November.

There were several quiet days during this period due to heavy snowfall and high winds. Even so, a long list of damaged aircraft noted that 11 Panthers had sustained multiple hits over their targets or suffered mechanical failures during missions. There were frequent mentions of damage to landing gear caused by aircraft hitting the deck too hard in windy conditions. Tragedy struck CVG-101 on 22 January when an F9F made what looked like a normal deck landing. However, the impact of the wheels touching the deck caused a 20 mm round to be fired from one of the Panther's cannon, killing a plane director on the forward deck.

On 4 February CVG-101 was re-designated CVG-14. Two days earlier VF-721 (which became VF-141 on the 4th) had suffered its only combat loss when one of its new F9F-5s was hit by flak during an attack on Wonsan harbour. The pilot ditched off the coast and was rescued by a US Navy destroyer.

*Kearsarge* was equipped with H-8 catapults, which were ideal for both jet aircraft types deployed and more reliable than those fitted to older carriers. Records for the cruise indicate that F9Fs and F2Hs used the port catapult 578 times and the starboard one 650 times.

On 23 February the recently re-designated CVA-33 was withdrawn to Yokosuka naval base. After a brief stay, the ship sailed for home via Pearl Harbor. The carrier's place was taken by *Princeton*, which was making its fourth, and last, combat cruise.

For much of *Kearsarge's* time on station with TF 77 it had operated alongside *Oriskany*, which also completed only a solitary war deployment. CV/CVA-34 saw action from 29 October 1952 through to 2 May 1953,



its CVG-102 (which was undertaking its second combat cruise) featuring two Panther units, VF-781 and VF-783. These squadrons, which were re-designated VF-121 and VF-122, respectively, on 4 February 1953, gave the new F9F-5 variant (powered by the Pratt & Whitney J48 engine) its combat debut on this deployment.

CVG-102's missions over enemy territory were flown at a time when MiG-15 operations were at their highest level during the war. The mission tempo observed by the carrier air groups was particularly demanding, and aircraft losses reflected this. Between late October and 22 November 1952 *Oriskany's* carrier air group flew 929 sorties in just 11.5 days of operations. Fine weather was a major contributor to the increased mission tempo. The carrier's two Panther squadrons recorded an average of 8.7 flights per pilot during that period, and the intensity of operations had an impact on the maintenance crews. There was only one day in October when the F9F squadrons did not expend any ordnance.

CVG-102's records for the cruise show that the highlight of this busy period was a 15-minute dogfight on 18 November involving three F9F-5s and seven MiG-15s. The action took place about 45 miles from the task force, which was operating southeast of the North Korean city of Chongjin. Cloud cover that day started at just 500 ft above the freezing Sea of Japan, with visibility estimated at two miles in blowing snow as the Siberian blizzard howled over the pitching, rolling shapes of the ships forming TF 77.

On the flightdeck of *Oriskany* the deckcrew manoeuvred two F9F-5 Panthers of VF-781 onto the catapults. Division leader Lt Claire Elwood and wingman Lt(jg) John Middleton advanced their throttles and held the aeroplanes in position by standing on the brakes. They were then shot off the bow in quick succession, dipping low over the grey seas as they retracted their landing gear. Section leader Lt Royce Williams and wingman Lt(jg) David Rowlands moved into position behind Elwood and Middleton. In the blowing snow of the Siberian blizzard, the four dark blue jets were soon swallowed in the blinding snow flurries within the clouds, their noses high, climbing under full power at 5000 ft per minute.

As each pilot strained to maintain visual reference on each other, the radio came alive with the information that bogies had been detected 83 miles north, directly inbound toward the task force. The order was simple – Intercept. After two minutes in the clouds, things began to get

**Lt Joseph J MacBrien, an exchange pilot from the Royal Canadian Navy serving with VF-781, lands his F9F-5 (BuNo 126034) aboard USS *Oriskany* (CVA-34) off the coast of Korea on 15 November 1952. Assigned to CVG-102, VF-781 and sister-squadron VF-783 gave the 'Dash-5' version of the Panther its combat debut during this deployment. The F9F-5 featured a taller fin and more powerful Pratt & Whitney J48-P-6 turbojet engine, the latter making the aircraft faster than the 'Dash-2' (US Navy)**

brighter and suddenly all four pilots were out of the cloud and in clear skies at 12,000 ft. 'None of us had ever flown together before', Royce Williams explained to historian Thomas McKelvey Cleaver in 2012. 'When the carrier decided to launch an extra CAP, the squadron gave it to the four of us because, for various reasons, we hadn't been able to fly a lot recently. My first mission in ten days after catching a cold had been the strikes against Hoeryong that morning'.

The four Panthers continued straining upwards. As they passed through 16,000 ft, Section Leader Williams spotted seven contrails far above, at 40,000 ft or more. A moment later, his sharp eyes caught the sun flashing on the shiny swept-wings of seven MiG-15s flying abreast of each other, the jets carrying the red star of the Soviet Union on their flanks. 'I flipped on my gunsight and fired a burst to test my guns. At that moment, Lt Elwood, the Flight Leader, reported his fuel pump warning light had come on. The CIC [Combat Information Center] directed him to report overhead the *Oriskany*. He passed the lead to me and turned back in the direction of the task force, with his wingman flying as his safety escort'. The odds had just gone from four against seven to two against seven, as the MiGs continued inbound. Williams maintained his climb.

'We were just going through 26,000 ft when the Russians split up and dove out of the contrail layer – the first ones came at us from the side in a four-aeroplane formation, shooting. I pulled into a hard climbing left turn and came around on the Number Four MiG. I fired a burst and he went down smoking. My wingman then followed him down, leaving me alone'. The odds were now one against six. The three remaining MiGs of the first group climbed to position themselves for another firing run. They reversed course and Williams turned into them again and again, firing as they flashed by at a very high closure rate. 'They had me cold on manoeuvrability and acceleration – the MiG was vastly superior on those counts to the F9F'.

The other three MiGs now joined in too, with Williams dogfighting six enemy fighters in an aeroplane that should not have been able to compete. While he reversed, jinked and rolled against the gaggle, he saw a MiG locked on his 'six o'clock' position, forcing him to execute a very hard turn in order to escape. Several times he tracked an individual MiG, firing rounds that appeared to hit his target, but he could not follow these bursts up, instead trying to keep his 'six o'clock' clear. 'I was firing at every MiG that passed within gun range as they came by', he recalled. Williams kept the Panther at full throttle, each time turning into the enemy fighters

as they commenced a firing pass.

'Finally, the leader and his wingman went off to the right while I went after the section leader of the aeroplane I'd shot down. He went into the sun and I lost him, then I saw the leader and wingman come around for a diving attack on me. I turned into them and fired at the leader. He turned away and the wingman rolled down on me, and we went past belly-to-belly as I raked him with a long burst.

**This gun camera film still shows one of four Soviet MiG-15s downed by Lt Royce Williams of VF-781 on 18 November 1952. The communist jet is clearly trailing smoke as it plummets towards the sea (Royce Williams)**



He went down on fire'. Williams duly pulled up and away from the burning enemy fighter. 'The section leader then came around, and I turned into him and opened fire. He too went down. The Leader then came around again and I fired, and parts came off him as he dove away'. In the fight of his life, Royce Williams had done what no other American pilot had accomplished in this war – the shooting down of four MiG-15s in one mission. But the fight was not over.

'As I manoeuvred to avoid the wreckage, I was porpoising to try and clear my tail. I was tracking another wounded MiG when I suddenly spotted one of the others as he slid in on my six. He fired a burst with his 37 mm cannon and hit me in the wing. The shell went into the engine and messed up the hydraulic unit in the accessory section, and I suddenly lost rudder and flaps, and only had partial aileron control. The only things that really worked were the elevators. I dove toward the cloud deck below at 13,000 ft, and he was 500 ft behind me, and still shooting. My wingman finally got back in the fight and came in on him, and he pulled away as I went into the clouds'.

Williams was in serious trouble, fighting for control of the Panther as it dived towards the sea. 'I came out of the clouds at around 400 ft. I was too low to eject – you had to be above 1200 ft and climbing to successfully eject from a Panther, so I was stuck with staying in the aeroplane, like it or not. I soon discovered it was uncontrollable below 170 knots, so I had to maintain high speed regardless'. It also did not help that several of the destroyers escorting the task force opened fire on Williams as he passed a few hundred feet overhead. 'Fortunately, I was low enough that they didn't have a chance to really aim, so nobody hit me'.

Aboard *Oriskany*, the flightdeck was cleared for what was obviously going to be a crash landing. 'I didn't want to ditch, because I wasn't sure I could do it successfully in my damaged aeroplane. I also knew that the water was so cold I wouldn't last ten minutes even in my poopy suit'. The Panther's normal landing speed was 105 knots. Williams kept the bucking jet under control as he made a straight-in approach, maintaining 170 knots. 'The captain of *Oriskany* headed the ship just away from the wind, which gave me the opportunity to come aboard, and I caught the three wire and shut her down'.

Williams climbed out of the riddled jet and stared at the damage, surprised he had made it back. 'They counted 263 holes in the aeroplane, mostly from 23 mm hits – there were some 37 mm hits too, including the one in the wing that went into the engine. I had fired off all 760 rounds of 20 mm I had aboard. I wouldn't have had a chance if I hadn't been armed with those 20 mm cannon'. After removing everything of value from BuNo 125459, the deck crew heaved the broken carcass overboard and it disappeared into the dark sea.

Despite his outstanding performance, Royce Williams would officially be credited with just one kill and a probable damaged following this mission.

**Lt Royce Williams points to the hole left by a 37 mm cannon shell that hit his Panther's engine accessory section, knocking out the fighter's hydraulics and severing the rudder cables. With his elevators being his only effective means of control and his opponent still on his tail, Williams dived into clouds at a lower altitude and then nursed his crippled jet (BuNo 125459) back to *Oriskany*. After removing everything of value from the Panther, the deck crew heaved the broken carcass overboard and it disappeared into the dark sea (Royce Williams)**



The reason for this was simple. TF 77 had been operating just 90 miles from Vladivostok when this action took place. With radar tracking the communist aircraft as they approached from that direction, there was little doubt that these were Soviet MiGs. There was real fear at the highest levels of US and UN command that an 'incident' between US and Soviet forces such as this one could change the 'police action' of Korea into World War 3. After cautioning Williams to tell no one about the fight, Vice Adm Robert P Briscoe, Commander Naval Forces Far East, informed him that the National Security Agency (NSA) had a team aboard the cruiser USS *Helena* (CL-50) that had recorded all Russian radio traffic leading up to and during the fight. The NSA had proof that he had downed at least three of the MiGs, and that the fourth had crash landed.

Following the end of the Cold War, in 1992 the Russians revealed that Williams had indeed downed four MiG-15s, flown by Capts Belyakov and Vandalov and Lts Pakhomkin and Tarshinov of the VVS-PVO (the Air Defence Forces of the Red Air Force). Vandalov, Pakhomkin and Tarshinov had all been directly shot down in the fight, while Belyakov, the flight leader, had been badly shot up by Williams and crash-landed as soon as he was over Soviet territory, being killed in the resulting crash. Royce Williams was the top-scoring Naval Aviator of the 'forgotten war' in a performance unequalled since.

For the reporting period 28 October to 22 November 1952, *Oriskany's* two F9F-5 squadrons completed a total of 270 sorties. Both VF-781 and VF-783 flew a similar number each, with most of their sorties recorded as armed reconnaissance missions – most of the escort missions for the carrier's propeller types were flown by USAF F-86 Sabres. CVG-102 recorded a total of 668 sorties for the period, with one of its busiest days being 16 November. All of its aircraft were involved, dropping a combined total of 61 tons of bombs. The Panthers each carried four 260-lb weapons in attacks on multiple targets. Several of the fighters were launched late in the afternoon, and they were successful in destroying the trucks they caught out in the open.

December also proved to be a busy time for the Panther squadrons, despite marginal weather conditions. The Chinese were on the move, using the bad flying weather as cover. On one day CVG-102 flew 95 sorties, with both Panther squadrons performing armed reconnaissance missions close to the Yalu River. They shot up several buildings housing enemy troops and cleared traffic from several miles of north-south roads. A few days later VF-781's pilots provided flak suppression for an attack by Skyraiders from VA-923 on some heavily defended targets. All the ADs returned safely to *Oriskany*.

CVG-102 records show that through to year-end, 155,831 20 mm cannon rounds were fired – most during armed reconnaissance missions. VF-781 was credited with firing 56,009 rounds, while VF-783 expended 54,285. Both units also fired a combined total of 722 anti-tank rockets and dropped a considerable number of fragmentation bombs during flak suppression missions – 458 by VF-781 and 358 by VF-783. Such statistics help explain why the Chinese had not mounted any effective offensive operations during the final months of 1952. Of the four types of mission flown by F9F pilots assigned to CVG-102, most were armed reconnaissance – both squadrons logged a total of 149 such sorties. The lowest number was attributed to photo-reconnaissance escort missions, of which there were 53.

# INTERDICTION, RESCAP, CAS AND MORE MiGs

**A**lthough F-86 Sabre pilots had the main responsibility for protecting fighter-bombers from marauding MiG-15s, Naval Aviators in F9Fs continued to provide cover for missions specifically generated to rescue downed pilots. TF 77 had what it referred to as a RESCAP (Rescue Combat Air Patrol) Doctrine. This gave priority to the protection of slower aircraft involved in the retrieval of downed airmen within range of enemy fighters. Panthers, and later Banshees, were the key aircraft in this situation. It was recognised that a downed pilot in the water was less likely to be captured than one on the ground in enemy territory. And it was the latter situations that the Panthers were ideally suited to, their powerful 20 mm cannon and high speed allowing their pilots to make multiple firing passes on enemy troops attempting to capture downed airmen. They were usually among the first aircraft on the scene.

The TF 77 doctrine covered a four-aeroplane division flying a RESCAP mission. It noted;

‘Their first job is to secure the area around the downed pilot, with one or more fighters in the division maintaining sufficient altitude to have a clear communication between the inbound helicopters or amphibious [rescue] types. When one or two divisions of Panthers arrive on the scene most will be required to orbit, by section, in three orbits, with a safe altitude gap between them, each of which allows complete surveillance of a 120-degree sector from the position of the downed pilot. These must be flown close enough to keep the pilot or aircrew member in sight at all times, but not close enough to alert advancing enemy troops as to his exact position.

‘From these orbiting circles threats detected can be attacked and suppressed with a minimum loss of time. The worst scenario in this doctrine is when a two-ship element runs into intense anti-aircraft fire and one goes down. This leaves a single ship airborne to clear the area before additional help can arrive. The airborne pilot has no choice but to climb to altitude to establish communications with a rescue agency and still be able to dive

An F9F-5 from CVG-5's VF-53, embarked in CVA-45, launches off the flightdeck of *Philippine Sea* just a few miles off the North Korean coast after landing aboard the latter vessel when it ran short of fuel in early 1953. Being able to come so close in-shore meant that carrier aircraft could reach the Yalu River and have ample loiter time over targets in this area. The carriers' ability to range up and down the coast was a major asset for naval air support  
(Ken Brownell)



The pilot of this F9F-5 Panther from VF-51 experienced trouble lowering the jet's right main gear on final approach to *Valley Forge* during the spring of 1953, but he still managed to make a safe landing. Deck crew would now be charged with removing the fighter as swiftly as possible in order to get the carrier fit for recovering aircraft once again. Mission tempo for TF 77 increased during the early months of 1953 in an attempt to force the communists to attend peace talks. US Navy Panther losses from 1 January to 30 April 1953 rose accordingly, with 22 F9Fs being lost – four of them were from VF-51 (*Tailhook Association*)

down and offer attack cover for the downed pilot. The rule here is that it is more practical to get help as quickly as possible unless an immediate threat to the pilot on the ground is critical.'

The F9F was considered to offer the optimum level of protection in rescue scenarios as long as other Panthers had been launched from the carrier to relieve those that were first on the scene. Their loiter time was limited, and certainly not as good as propeller-driven types like Skyraiders and Corsairs.

On 20 November 1952 *Valley Forge* began its fourth, and final, combat cruise of the war. Its aerial strike force was under the control of CVG-5, and included two F9F-5 squadrons, VF-51 and VF-53. Combat operations commenced for the vessel at 1145 hrs on 2 January 1953 with the launch of 72 offensive sorties. A VF-51 Panther was among the first to take off. The next day 96 sorties were launched to attack a wide variety of targets ranging from troop and supply concentrations at the bomb line all the way into the most northern extremities of North Korea. A Panther from VF-51 had to ditch alongside the carrier that same day when, on a wave off, the aircraft suffered an internal explosion and burst into flames. The pilot was rescued by the plane guard helicopter.

The F9F's value in the armed reconnaissance role was clearly demonstrated on 16 January when a single Panther stumbled onto major rail activity in the Wonsan area. After a few strafing runs the pilot radioed the location back to *Valley Forge*, and a squadron of ADs and one of Corsairs was launched to attack. The complex was found to contain 150 wagons. When CVG-5's bombers left the scene they had destroyed 20 and damaged another 40. As the last of the strike force was landing on at dusk it was the turn of the night hecklers to be launched. They were, however, unable to finish the job because of heavy atmospheric haze.

During this period a report stated that all F9F-5 pilots on board *Valley Forge* had encountered no difficulty in operating from a conventional CVA-9-type carrier equipped with the newer H4B catapults. The 'Dash-5s' had more powerful engines and the H4B helped them take off while carrying more ordnance. With an externally carried 1200-lb strike load the F9F-5 weighed 19,000 lbs. This helped explain why the shorter carriers



needed plenty of wind across their flightdecks to get maximum performance from the new Panthers.

A lack of deck space on the smaller vessels proved to be a problem during the famous 'Cherokee strikes' of early 1953. These were attacks made on enemy supply routes just north of the bomb line by aircraft from four carriers, as well as US Marine Corps air assets. They were ordered by Vice-Adm Joseph 'Jocko' Clark, commander of the Seventh Fleet. Clark was descended from the native American Cherokee tribe, hence the nickname given to the operations.

The strikes had to be successful as they were intended to act as a morale booster for troops on the frontlines. They were frequently mentioned in reports filed by *Valley Forge* during the war's final six months. Indeed, when the vessel completed its combat activities on 27 July it was noted that CVG-5's pilots had fired a combined total of 878 5-in HVARs and 1016 ATARs – many of these had been expended by Panthers during 'Cherokee Strikes'.

On 15 December 1952 *Philippine Sea* started its fourth, and final, cruise of the war with CVG-9 embarked. The carrier air group's F9F-2s were flown by VF-91 and VF-93, and they would remain on station until early August, just days after the cessation of hostilities. Their first order of business, however, saw CVA-47 exercising off the coast of Japan with the Japanese Air Self-Defence Force, so it was not until 31 January that CVG-9 was able to launch its first combat strikes. The targets were located in and around Wonsan, and included an airfield and a major supply dump.

For the next five weeks the two Panther squadrons hammered targets up and down the coast. They also flew top cover for the slower propeller-driven bombers. These efforts were met with unusually intense ground fire, and since most of the flak suppression was carried out by the fast-moving Panthers, they also suffered their share of the losses. The first for either squadron came on 16 February when one of VF-93's Panthers was badly damaged by ground fire. Its pilot reached the task force but had to ditch into the sea before making his final approach to the carrier. The aircraft sank quickly and the pilot was not recovered. A further ten Panthers would be lost before the cruise had ended, although not all of them because of enemy action. Two days later another of VF-93's aircraft was shot up, but the pilot made it back as far as a picket ship where he had to ditch. He was rescued, but suffered back injuries. Two weeks later, VF-91 lost its first jet when Ens E A Nixon was hit by enemy fire over the target and crashed. He was listed as killed in action.

VC-61's Detachment M was also on board at this time with its F9F-5Ps. Between 31 January and 7 March the unit was in great demand as the ship's intelligence officers asked it to fly 50 sorties with its three assigned Panthers. Pilots duly brought back both pre-strike and post-strike images, the film being processed, printed and sent out to all four of the task force's carrier air groups. The key to the F9F-5Ps' success was to get the photos required as quickly as possible and then leave the target area. This cut down reaction time for the anti-aircraft gunners. The top cover provided by the F9F-2s was effective in that none of these sorties was interfered with by marauding



*Philippine Sea* sails off the coast of North Korea on 3 May 1953. On deck are various aircraft of CVG-9, namely 14 F9F-2 Panthers of VF-91 and VF-93 (one on the port deck edge elevator), six AD-4/-4NA/-4NL Skyraiders of VA-95, 11 F4U-4s of VF-94, three AD-4Ws of VC-11 Det M (one on the starboard bow, two in front and to the right of the lowered deck elevator) and an AD-4N of VC-35 Det M (aft of the elevator) (US Navy)

**Right**  
During the first few carrier combat cruises the only photo-reconnaissance aircraft available to TF 77 were the F4U-5P Corsairs of VC-61, which were slow and needed plenty of protection. The first carrier to embark the F9F-2P photo-reconnaissance variant of the Panther was *Princeton* which, in November 1950, deployed a trio of F9F-2Ps from VC-61 Det E. This photograph was taken on *Princeton* two-and-a-half years later, when VC-61 Det D sent three natural metal F9F-5Ps on deployment with CVG-15. The aircraft riding the flightdeck elevator has a replacement canopy fitted, which is painted in midnight blue. The 'Dash-5s' behind the jet are from VF-153 and VF-154 (*Dick Starinchak*)



VF-831 Panther pilots are pictured undergoing training in Hawaii with the 'Poopy Suit' to ensure that they know what to do in the event of ditching in the frigid waters off the North Korean coast. These Naval Aviators were subsequently embarked in *Princeton* with CVG-15 during the vessel's 1953 combat cruise. VF-831 was re-designated VF-153 on 4 February 1953, shortly before *Princeton* went into action with TF 77. This training came in very handy, as VF-153 lost an astonishing nine F9F-5s during its eight-month deployment (Jerry Miller)

when a further eight F9Fs were destroyed. Although things improved in May, when just two aircraft (both from VF-153, embarked in *Princeton*) were lost, no fewer than 16 Panthers were destroyed in June and July. VF-91 had a particularly bad time of it, with six of its F9F-2s being lost.

The fighting war ended on 27 July, and the preceding week was characterised by non-stop interdiction of all the main enemy supply routes. During the three days before the ceasefire *Philippine Sea's* CVG-9 led those of the other carriers on these sorties. On the 28th CVA-47 completed its time on-station and withdrew to provide replacement aircraft for other carriers in the Far East. The ship then left TF 77 for Japan, and soon afterwards sailed back to the USA.

*Princeton's* fourth, and final, deployment covered the period between mid-January and mid-September 1953. Its CVG-15 included VF-153 and VF-154 (which had started the cruise as VF-831 and VF-837, respectively, before being re-designated on 4 February 1953) with their F9F-5s, as well as a detachment of photo-reconnaissance F9F-5Ps from VC-61 Det D.

During the early stages of CVA-37's combat cruise TF 77 had five carriers on station. Their job was to support UN efforts in preventing a major offensive by the Chinese at that late stage of the war. All F9F squadrons made continuous attacks on major supply routes and known troop concentration areas. In return, the enemy protected its assets with a large array of mobile automatic anti-aircraft gun batteries. This was reflected in

MiG-15s. During the first ten days of February photo-reconnaissance revealed that the Chinese were challenging the UN's aerial gauntlet in force, as a total of 3392 trucks were seen moving in the Wonsan area alone.

The heavy Panther losses of the first three months of 1953 (when 14 US Navy jets were lost to all causes, compared with an identical number in the second half of the previous year) continued into April,



the losses sustained by CVG-15 during the final four months of the conflict. VF-153 lost nine Panthers and VF-154 two, although only half of this total was attributed to ground fire over targets. Mechanical problems or faulty catapult shots accounted for the rest.

Considering the sheer number of sorties being flown during this period, Panther pilots encountered remarkably few in-flight problems. Lt George Schnitzer of VF-153 was in the unlucky minority, however;

‘During many of the CAP flights there were frequent problems with jet engines over-speeding. It happened in both Panther squadrons when the aeroplanes were above 25,000 ft. This was due to a condition called auto-acceleration. The problem was caused when the turbo jet controller [TJC] unit “froze” due to its temperature sensitivity at high altitudes. Shortly after this happened the engine would start to accelerate because too much fuel was being sent to it. If not stopped, the engine could go over the 100 per cent power level. The only thing the pilot could do to prevent this was to pull the throttle to the idle position and switch the TJC control to manual. This could then lead to another problem – engine flame out!

‘I had personal experience of TJC “freeze” whilst at 35,000 ft during a CAP mission. We were flying in an open spread-out formation with a power setting of about 86 per cent when I felt the aircraft suddenly start to accelerate. A quick check of the engine power setting instrument revealed the rapid gain in rpm. I snapped the throttle to idle with my left hand just as it passed through the 105 per cent mark, while simultaneously finding the TJC selector switch and moving it to manual. On the approach to the carrier I made very smooth throttle movements to ensure there wouldn’t be any flameouts, especially at such a low altitude.’

When problems cropped up they had to be dealt with quickly, often with help from experts. Schnitzer reflected on a few of the troubles he encountered during his two combat cruises;

‘We had some difficulties with the Aero 14A bomb racks in use on the Panther. I had experience of both models. The “Dash-5s” were equipped with a different bomb rack to the F9F-2s. The Aero 14A had suffered from design defects that affected loading, maintenance and bomb release. In accordance with TF 77 directives, the racks were disassembled after each malfunction and a report made about the failure. It was found that bent and broken sears and defective arming solenoids were causing most of the problems. The heavier the bomb, the greater the chance of the rack failing. The safest way to reduce the odds was to keep the wings folded with the bombs attached, thereby taking a lot of pressure off the racks. The wings would come down right before catapult launch. Coming back with a bomb that hadn’t dropped was also very dangerous because of the added pressure on the racks when you touched down and caught the wire.’

Problems were also encountered with the 5-in rockets carried by the F9Fs. Most had been manufactured during World War 2, and they often failed to fire because of broken electrical connections. This was attributed to the much higher airspeeds of the jets. An action report noted



**Safely back from another mission in his unpainted F9F-5P, the pilot of this VC-61 Det D jet has activated the wing-fold mechanism prior to taxiing towards the bow of *Princeton* during the late spring of 1953. The experimental natural metal finish seen on this and many other late-war Panthers was subsequently abandoned when excessive corrosion afflicted the unpainted airframes. During the war VC-61 operated three types of aircraft in detachment strength from large carriers assigned to TF 77 – F4U-5P Corsairs, F9F-2/5P Panthers and F2H-2P Banshees. The jets produced better quality images due to their speed and lack of vibration. They also sustained lower levels of battle damage and were less vulnerable due to their 575 mph speed (Dick Starinchak)**

that, 'The pigtail electrical connection for rockets is the weakest link in the rocket system. The high speeds of the Panthers and Banshees whip the wires into pieces or saw the wires at the rocket base'.

As a result of these failures the rocket motors did not ignite, and pilots often returned to their carriers with unfired ordnance. During *Princeton's* final cruise in 1953 at least 30 cases of hung rockets were recorded. This represented an alarming proportion of the rockets carried. Fortunately for the flightdeck crews, most of the rockets stayed on the racks during arrested landings.

Lt Schnitzer also recalled problems with the Panther's 20 mm cannon; 'They usually suffered one stoppage per 1800 rounds on average. The F9F-5 carried four 20 mm cannon, and each had 600 rounds of ammunition. This meant that someone had a jammed gun on almost every mission. It sure wasn't a comforting fact! Compared to the 0.50-cal machine gun, it was a very high failure rate. For the 0.50-cal there was one stoppage per 8500 rounds. It appeared that the demands of wartime flying were way ahead of the technology built into these new jet aircraft. The Navy seemed to be running on a peacetime schedule even though we were fighting a war.'

Another perspective on the Panther's cannon comes from Ens Jack Cogdell of VF-31, who had flown F9F-2s from *Leyte* during the early stages of the war;

'We carried 190 rounds for each gun, and we could fire all four cannon, or two at a time. If we fired all four, we had ten seconds worth of ammunition since each gun fired 19 rounds per second. We almost always fired all four. When we did, the recoil shook the aircraft rather violently and caused an immediate and noticeable loss of airspeed. A one-second burst put 76 projectiles on target. The ammo was loaded as a combination of armour piercing, armour piercing tracer [APT] and high explosive incendiary rounds.

'During replenishment days the junior aviators helped the armourers with "belting" the ammunition for the aircraft in their squadron. We VF-31 pilots stood around the belting machine and took it in turns to place a specific kind of ammo in its loading tray. In our case it was AP, APT, HEI, AP, APT and HEI – a very potent mix.

'When the weather turned cold a disconcerting problem became apparent. As we approached the target area we switched on and charged the guns. This placed the first round in the chamber. When we pulled the trigger all four guns fired, but they only fired that single first round. No amount of switching the guns on and off or repeatedly pulling the trigger produced more firing. Effectively, we had four single shot cannon, which was bad for a frontline Navy fighter. This problem baffled the ordnance crew, and it persisted for some time. After several days a Marine ordnance expert came over to *Leyte* and the solution was found. It was determined that the lubricant being used was freezing. His idea was to remove all the lubricant, fire the guns "dry" and accept the added wear. It worked.'

During the period between mid-April and mid-May 1953 *Princeton's* two Panther squadrons flew 431 strike missions and 381 CAPs. When other types of missions were also included the overall total reached 904 sorties. With so much exposure to ground fire the high loss rate suffered by CVG-15 was understandable. The in-service rate for VF-153 and

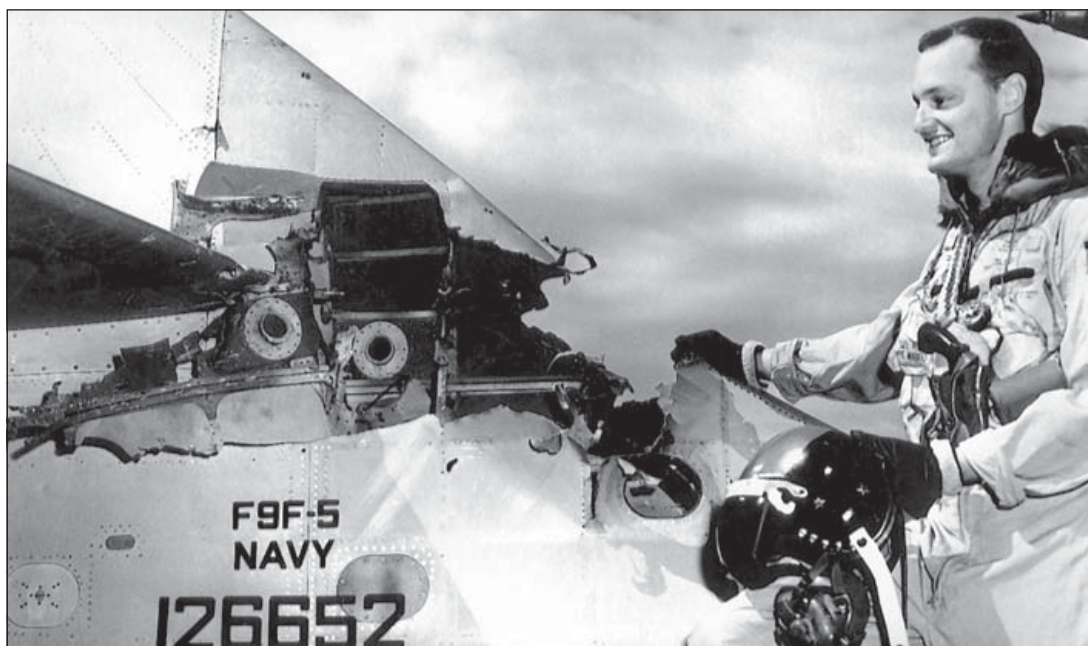
VF-154 during the June-July period dropped considerably as a result, with each unit often having only 16 F9F-5s available on a daily basis for much of June. By the end of July, the figure for VF-153 had fallen to 11, and 13 for VF-154. Nevertheless, CVG-15's Panthers had flown a total of 1050 offensive sorties by the end of the cruise – a total that clearly demonstrated the scale of the effort being made. Records maintained by the ship's ordnance department noted that both Panther units dropped more than 3900 250-lb bombs and 3500+ 100-lb bombs, while firing in excess of 283,000 20 mm cannon rounds.

All carriers encountered problems when the F9F's wings were folded on deck. When a Panther was being towed across *Princeton's* deck with its wings folded it was blown over on its side by the blast from another aircraft's engine. The wing on the damaged aircraft had to be changed. This incident provided a clear demonstration that the F9F was not very stable when its wings were folded. Another issue mentioned in group records was that some F9Fs made normal landing approaches but when they touched down the tailhook hit the ramp. This caused it to lock in the up position, leading to an encounter with the barriers, or worse.

One of the most interesting tales to come from *Princeton's* cruise was the legend of 'The Blue Tail Fly' and the fate of experienced F9F-5 pilot Lt(jg) Richard 'Stretch' Clinite of VF-153. Panther parts were extremely scarce during the latter stages of the Korean conflict, so VF-153's maintenance personnel had to get creative when the number of serviceable aircraft in the unit began to drop alarmingly due to attrition. They duly took the salvageable parts from two Panthers and came up with an interesting creation that would become known as 'The Blue Tail Fly'.

In early May 1953 Clinite had been flying a 'Dash-5' in an experimental natural metal finish when it was hit hard by flak. The Panther's tail was badly damaged, although he was able to return to the carrier. At first it appeared that the aircraft would have to be grounded until a major

**Lt(jg) Richard Clinite, a VF-153 pilot on his second combat tour, shows off the damage to his F9F-5 caused by large calibre anti-aircraft fire during an attack on a major target in early May 1953. This aircraft was later repaired with sections from another F9F-5 that had been badly shot up, resulting in the creation of *The Blue Tail Fly*. A few days after this incident, Clinite was hit again by AAA while flying another Panther, forcing him to eject over the sea. A rescue helicopter was quickly on the scene, but strong gusts of wind whipped up the surface of the water and prevented Clinite from collapsing his parachute and he duly drowned before he could be recovered (Jerry Miller)**



overhaul could be accomplished in port. In the meantime another VF-153 pilot, Ens W A Wilds, brought back a standard F9F-5 with its forward fuselage badly holed by flak. It was then that the maintenance crew displayed its ingenuity. The undamaged parts of the two aircraft were combined during an all-night work session, allowing Clinite to be presented with a new hybrid Panther. The story of 'The Blue Tail Fly' ended after its 12th mission (on 12 May) with Clinite in the cockpit when the aircraft was ordered back to the USA for rebuilding.

The next day Clinite took off for a mission in another F9F. Near Wonsan he encountered heavy flak that damaged his aircraft so badly that he had to bail out into the sea. A rescue helicopter was quickly on the scene, but strong gusts of wind whipped up the surface of the water and prevented Clinite from collapsing his parachute. The helicopter crew attempted to hoist the downed pilot to safety, but this proved to be an impossible task because the high winds kept billowing the parachute out. Although Clinite was eventually rescued by the destroyer USS *Samuel N Moore* (DD-747), it was too late. He had already drowned, and attempts to revive him failed. This tragic story was probably repeated numerous times during the war at sea.

In a press release issued in late February 1953 the US Navy stated that during the first 30 months of the Korean War it had lost 522 aircraft and the US Marines Corps 481. In that respect it was a very expensive war.

The penultimate carrier deployment of the conflict involved *Boxer*, whose fourth, and final, combat cruise commenced on 30 March and lasted until late November 1953, four months after the war had ended. Its ATG-1 would find itself pitted against Chinese forces as they mounted last-ditch efforts before the end of hostilities. ATG-1 was different to the carrier air groups that had deployed earlier in the conflict because it included three Panther squadrons, although not all of them were present for the full cruise. VF-52 and VF-151 were equipped with F9F-2s while the 'part-time' VF-111 had the newer F9F-5s.

Carrier air group records for the time CVA-21 was home to three Panther squadrons stated;

'Operations with three jet squadrons and one Skyraider squadron have presented no unusual aircraft handling problems. However, the number of aeroplanes that can be spotted for a maximum deck load launch is limited.

It has been experienced on *Boxer* that 20-22 props and 22-24 Panthers constitute a full deck load. The present practice is to spot all jets with tail pipes over the catwalks, except for four to six aeroplanes spotted to starboard along the island. This permits 100 per cent turn up of all jets prior to leaving the spot, with the exception of those aircraft adjacent to the island. These are limited to a 60 per cent turn up until spotted on the catapults.

'It is strongly recommended that when three squadrons of F9Fs are

VF-153's famous F9F-5 BuNo 126652, christened *The Blue Tail Fly*, taxis into the forward parking area aboard CVA-37 after returning from a combat sortie in May 1953 – it completed 12 such missions in this configuration before being sent to NAF Atsugi for a rebuild (Jerry Miller)



embarked on the same carrier that they all be of the same type, especially where the assigned jets (F9F-2 and F9F-5) are employed to perform the same missions but are not interchangeable for pilot assignment. Limitations of the H4B catapults, coupled with low wind conditions, make it very difficult to achieve design load-carrying capabilities of the F9F-5 while embarked on unconverted CVAs. Reduction of the “Dash-5” complement with proportionate increase in the number of F9F-2s embarked in ratio to load and no-load flights (CAP, photo-recce escort, etc.) would serve to increase the fighter-bomber potential of the air group.’

Operations continued even when wind velocity over the flightdeck was insufficient. The Panthers had lighter weapons loads than the Corsairs and Skyraiders, which allowed them to take off safely into what little wind there was. Bad weather also adversely affected flight operations during the last month of the war, cutting the number of sorties flown at a time when Chinese troops were pushing hard to gain ground prior to the inevitable ceasefire. Nevertheless, *Boxer* reached a significant milestone on 5 July when it completed its 60,000th landing.

Throughout ATG-1’s time with TF 77, F9F pilots were under a lot of pressure to cut off the enemy’s supply lines from the north. Their aircraft were usually armed with 5-in HVARs, as well as their 20 mm cannon. On days when the weather was good the first jets were launched at 0459 hrs and the last divisions to fly in the afternoon were recovered at dusk. On such days the carrier air group was flying at least 150 sorties. And this continued to war’s end, for on the very last day of the conflict (27 July) ATG-1 generated 77 combat sorties before the ceasefire came into effect at 2200 hrs.

Starting in late April 1953, USS *Lake Champlain* (CVA-39) made what would be the final carrier deployment of the conflict’s late stages, and only the second Korea War cruise undertaken by an East Coast flattop (*Leyte* had been the first in late 1950). The ship, which joined TF 77 on 10 June, would remain on-station until 4 December 1953. Its CVG-4 initially included no Panther squadrons, F2H-2-equipped VF-22 and VF-62 providing the jet fighter component of the carrier air wing. However, on 30 June VF-44, with its F4U-4s, was transferred to ATG-1 while the 16 F9F-5s of VF-111 swapped *Boxer*’s flightdeck for *Lake Champlain*. VF-111, led by Cdr A F Vickery, was an experienced squadron, having already completed 46 days of ‘on the line’ operations. The reason for the exchange was to enable the F9F-5s to take advantage of the improved H-8 type catapults installed in CVA-39. *Boxer*’s H-4B catapults had experienced trouble launching combat-loaded ‘Dash-5’ Panthers in the still weather conditions of May and June 1953.

By the time VF-111 started its second combat tour, a period of 22 days had elapsed since it had last seen action. Although the squadron was considered to have done an outstanding job during its second tour, it was thought that a lay-off of more than 15 days was excessive for jet pilots.

The Naval Aviators flying from the four carriers on station during the final weeks of the war faced conditions very different to those experienced by their predecessors. The communists’ offensive efforts meant that TF 77 operations had to be conducted in foggy conditions, when visibility was marginal at best. It was considered important that all the group’s pilots were prepared to fly in such conditions because of the tactical situation



ATG-1 Panthers parked aft on *Boxer* in 1953. Besides VF-111, other F9Fs belonged to VF-52 (S '200' modexes) and VF-151 (H '300'). However, VF-111 was the only unit equipped with F9F-5s, and it soon experienced difficulty operating these heavier jets from *Boxer's* old-model catapults. On occasion the carrier was unable to launch aircraft due to both insufficient wind over the deck and the unsuitability of its catapults, and aeroplane handlers had difficulty manoeuvring the larger 'Dash-5' on the number two elevator. Additionally, the incompatibility of F9F-2s flying mixed sections with F9F-5s (the latter were about 25 knots faster) prompted a decision to cross-deck VF-111 to USS *Lake Champlain* (CVA-39) upon the carrier's return to Japan (Archibald McCleish via Henk van der Lugt)

on the ground. Yet earlier in the war air operations might have been suspended for a day or two in such dangerous weather.

*Lake Champlain's* records state that CVG-4 followed the Allied Tactical Procedures Manual Volume No 1 in arranging for its jets to rendezvous at between 10,000-15,000 ft, as well as the standard low altitude procedure. It was found that whenever there were eight aircraft or less in a jet flight the low altitude join-up was far superior because it permitted a quicker rendezvous and, therefore, a speedier departure for the target area. During this cruise with three jet squadrons, two units rendezvoused low and one high. This was found to work well. Usually, when all three squadrons returned to the carrier after a long mission, VF-111's 'Dash-5' Panthers landed first because of their limited fuel endurance. Group figures showed that an F9F-5 flying at 10,000 ft for ten minutes at 82 per cent power burned 400 lbs of fuel.

The unit's Panthers used the H-8 catapult with very little difficulty. On CVA-class aircraft carriers this allowed the F9F-5s to launch with a normal load of eight 250-lb bombs with very little risk. However, increasing the ordnance loading by a further 1200 lbs significantly lowered the jet's radius of action and combat endurance. In its interceptor configuration the F9F-5 had a radius of action of about 300 nautical miles. As a fighter-bomber this was reduced to around 200 nautical miles, with only 12 minutes allowed for target identification and the actual attack. With wingtip tanks fitted, the 'Dash-5' carried 5800 lbs of fuel. Its fuel consumption was considerably higher than that of the F9F-2 due to its more powerful engine. Flights of 1.5 hours with external ordnance of 2000 lbs carried on two Mk 51 racks and six Aero 14A launchers were normally scheduled during this period.

One result of the 'Dash-5's' 'thirsty' engine was a large number of low fuel emergencies whenever the recovery time was late or when improper cruise control procedures had been used in flight, reducing the margin for safety. To improve matters it was recommended that the inboard Mk 51



racks be removed. This would decrease fuel consumption, increase airspeed and raise the service ceiling. Ordnance loadings would also be compensated for by carrying 500-lb bombs on the two inboard Mk 14A launchers.

At this late stage of the war the pilots of Panthers and Banshees were fully occupied escorting the propeller-driven types while flying CAPs, flak suppression missions and escorting VC-61 Det 44's photo-reconnaissance F2H-2Ps. It had been standard procedure that when either fighter type escorted bombers over 'MiG Alley' or the extreme northeast of Korea, the Banshees would fly top cover. Naval records state that the F9F-5's service ceiling was considerably lower than that of the F2H-2. The Panthers would therefore always fly at lower altitudes while the Banshees undertook top cover. This system was found to work well, and on most of these escort missions MiG-15s were not encountered.

Standing orders from TF 77 required CVG-4's photo-reconnaissance aircraft to reconnoitre known enemy airfields on a daily basis so as to determine their operational status. The Chinese were making a major effort to maintain them in operational condition so that they could receive aircraft before the ceasefire. Since most of these airfields were located deep inside North Korea, the photo-recce Banshees needed the cover provided by VF-111's Panthers.

VF-153's Lt Schnitzer, who flew from *Princeton* at this time, recalled the pressure placed on all the on-station carriers to monitor known enemy airfields;

'The weather in early July was erratic, and on some days it halved the number of sorties flown. On one mission, about two weeks before the ceasefire, we launched an armed reconnaissance flight over the airfields around Hamhung to verify that there had been no work done to improve them. Flying low, spread out over 100 ft, we could all get a good look at the airfields from different angles. The cloud cover was still present over

Sailors crowd around F9F-5 BuNo 126037 aboard *Lake Champlain* in July 1953. The jet's assigned pilot was Lt(jg) Rollo Young, but on 27 July the aircraft was flown by Lt(jg) W A Finlay, who dropped the squadron's last bombs of the Korean War – note the discrete bomb tally beneath the cockpit. The Panther's nose cone has been pulled forward to permit access to the fighter's four 20 mm cannon (Archibald McCleish via Henk van der Lugt)



the frontlines, so the second flight of the day was another radar drop. With marginal weather, the division's mission was to do high-level bombing once again from 18,000 ft. This time, as we approached the drop point, a large calibre AAA shell exploded between us, violently rocking me and my wingman. Fortunately for us we were far enough apart that neither of us picked up any flak holes in our aircraft. The gun that fired that round was a big one, and its air burst was huge, black and very ugly!

As the war moved towards its end the tempo of sorties flown by each carrier air group increased rapidly, as Schnitzer recalls;

'The next day our group set a record, with 152 sorties flown, and our Panther division flew two "Cherokee strikes". The first one was around Hyon-ni and the second near Hoieng. This type of attack was designed to fly in at about 20,000 ft, make a steep dive lining up on the target, drop the ordnance and then get the heck out of the area as fast as possible. The AAA was steadily getting heavier and heavier, as well as more accurate under radar control. After these strikes my division made a reconnaissance run over the road system looking for something to shoot up with our 20 mm cannon. It was one of our busiest days of the cruise.'

During the war's final two weeks the Panthers of VF-111, now operating from *Lake Champlain*, logged 58 CAP and 134 armed reconnaissance sorties. It was noted that since the Panthers of VF-111 had not been particularly active in the 22 days before transferring to CVA-39, numerous minor defects in their electrical and mechanical systems became apparent during their first two days of combat operations. This proved that the old adage that aircraft must be flown regularly to improve operating performance and reduce the need for minor maintenance also applied to jets.

The downtime for the 'Dash-5' Panthers was reflected in the July statistic for ordnance expended. Of the 199,841 20 mm rounds fired by CVG-4's aircraft, the Panther squadron only expended 32,375, although the jets did drop 1930 bombs (1346 of them were 250-lb GP bombs) – more than both Banshee squadrons. VF-111 did not lose a single Panther during the final 30 days of the war (it had lost one to fuel starvation on 19 June, however), although several aircraft had suffered damage caused by automatic weapons protecting high-value enemy targets. Group records show that Panthers were hit 15 times in July, with most of the damage caused by heavy calibre 37 mm rounds. All were able to reach their carrier or a friendly air base. VF-111 had compiled an impressive record during its short stay aboard *Lake Champlain*.

**This combat-weary F9F-5 from VF-153 was photographed at Osan AB (K-55) in July 1953 when the Korean War was approaching its end. The aircraft had probably sustained battle damage and was unable to return to the carrier. Osan was home to the F-86F fighter-bombers of the USAF's 18th Fighter Bomber Group (Charles Gelveles)**

# MARINE PANTHERS ENTER THE WAR

The US Navy's Panther squadrons were at a disadvantage throughout the Korean conflict, as they found themselves limited in the amount of ordnance their aircraft could carry when launching from their carriers. The F9F-2 was underpowered, especially during the early stages of the war, yet the aeroplane had to operate from the decks of carriers originally designed for piston-engined aircraft.

On the face of it US Marine Corps pilots of VMF-311 and VMF-115 (the only land-based units to see combat with Panthers in Korea) faced no such problems. Operations from land bases provided plenty of room for taking off with heavy loads, except, that is, when the runways were transformed into sticky mud by the heavy seasonal rainfall typical of South Korea. Even pierced steel planking (PSP) could not provide much help in such conditions. On balance, therefore, the US Navy maintained a slight strategic advantage because its carriers could range up and down both coasts of the Korean Peninsula, giving its aircraft easy access to key targets deep in North Korea.

The US Marine Corps responded to the need for jet fighter-bombers in-theatre by sending VMF-311 and its F9F-2B Panthers to Korea. On 30 November 1950 personnel began unloading their aircraft from the escort carrier USS *Bairoko* (CVE-115) in Japan, from where they moved to the air base at Itami to make their final preparations for combat missions. All Marine F9Fs displayed the 'WL' tail code.

At this stage of the war UN forces had pushed the NKPA all the way up to the Yalu River, but then the Chinese had entered the war. VMF-311's initial operational base was Yonpo AB (K-27) in North Korea. From there its pilots flew their first strike mission in support of the 8th Army in mountainous terrain ten miles southwest of the Chosin Reservoir. This mission, flown on 10 December, marked the first time US Marine Corps jet aircraft had been deployed in combat. Operations that far north by all UN aircraft were to be short-lived, however, as 'human waves' of Chinese troops rapidly drove friendly forces south.

On 13 December VMF-311 established itself at Pusan AB (K-9). The squadron's CO, Lt Col Neil R MacIntyre, described conditions there, and the kind of missions flown by his unit;

'The strip at K-9 was laid out on an old riverbed, with Marston matting for a hard surface. The Air Force tried to keep the dust surface compacted with asphalt sprays but nothing could really hold it down for any length of time. We had to make our takeoffs in two aeroplane sections. The dust cloud raised by our tail pipes was so thick that after takeoff we had to wait several minutes before the next two aircraft could depart. We quickly



**An unnamed pilot from VMF-311 mops his brow for the benefit of the photographer after he had a lucky escape when the starboard wingtip tank of his F9F-2 exploded after being hit by AAA. The pilot managed to land his jet back at Pohang (K-3) without any further dramas (US Marine Corps)**

became experts in two section takeoffs and four-aeroplane division join-ups en route to the target. We continued to operate under these conditions until the dust took its toll on our jets.

'We knew we were having mechanical troubles when the cockpit warning lights told us so. The immediate problem was fuel pump breakdown, along with fuel control malfunctions. The Panther had a dual pump system that provided the jet with a back-up pump in the event one of them broke down. This gave us some margin of safety. However, a warning light on the instrument panel doesn't lend itself to peace of mind, especially on a mission deep into enemy territory.

'Flying under control of Fifth Air Force, we had our missions assigned on a daily ops order. For example, it might be an armed recce mission near Wonsan on the east coast. That's where we would start but, as frequently happened, we would get diverted to a CAS mission over on the west coast. To be prepared for such possibilities, each of us had quite a library of maps all carefully indexed with a master chart on top to solve the immediate problem of getting into the general area that we were supposed to go. Once we were there, all you had to do was select the map for the target by grid coordinate, identify it, make a descent through the nearest cloud hole, fold the map back up and re-insert it in its proper niche under your leg, check the fuel state, monitor the warning lights, smile at your wingman and then go to work on your own or under the control of a FAC, either airborne or on the ground!'

The crowded conditions at Pusan AB, and the consequent wear and tear on the F9Fs, meant that the squadron was ordered back to Itami AB on 25 January 1951. VMF-311 had already lost three jets and three pilots by then, two of them in combat. Whilst in Japan the unit re-grouped, before heading to Pohang AB (K-3) on 17 February with 22 F9F-2Bs. Two days later its pilots were back in action, undertaking a successful armed reconnaissance mission over Chinese-held territory. For the rest of the month they concentrated on CAS and road reconnaissance missions. The result was the destruction of 39 buildings, four warehouses and several railway trucks. Pilots also caught a small group of Chinese troops just north of the 38th Parallel and dealt with them summarily. In return, a single Panther was lost during a landing accident at Kwang Ju AB (K-5). Maj Gen Paul Fontana recalled this brief period when the Panthers of VMF-311 saw action once again;

'When the squadron returned to Korea in 1951 I was the CO of Marine Air Group [MAG] 33 at Pohang AB. By this time VMF-311 had remedied its fuel pump problems. Under the command of Lt Col John F Kinney, the squadron reached an impressive combat sortie rate. He applied his ingenious mechanical abilities, which he had earlier used to maintain the Marine F4F Wildcats flying off Wake Island in World War 2. He helped make VMF-311 a very effective operational unit. Its performance from that time on was outstanding.'

During April 1951 VMF-311 was scrambled on two occasions to aid troops in contact with a numerically superior force from the CPVA.

Thanks to their speedy response, the unit's pilots influenced the outcome of the clash and contributed to the defeat of the enemy force. Following these two incidents operational procedures were changed. The practice of sending flights out for scheduled armed reconnaissance or CAS missions was replaced by a scramble alert system. From then on the squadron maintained four fully armed Panthers on ten minutes standby. VMF-311, with its 24 F9Fs, was the only unit in Korea to operate on this basis.

Throughout April and for much of May there was an average of 1.5 days of bad weather each week, limiting the squadron's effectiveness. Records state that its pilots encountered intense AAA on all of their missions, resulting in 12 aircraft returning with damage. A fighter was also shot down on 1 May and the pilot captured, this aircraft being VMF-311's first loss since 18 March. The unit was involved in a major raid on 9 May when its 20 F9Fs participated in a 300-aircraft attack on the big airfield at Sinuiju. Located on the south side of the Yalu River, it was well within range of the MiG-15s. The Panthers were able to stay over the target for 18 minutes before turning back to base as their fuel began to run low. During that brief period VMF-311's pilots reported sighting numerous MiG-15s north of the river, although none made any attempt to engage the strike force over the airfield.

The pressure on VMF-311 was ratcheted up a notch in May 1951 when the FEAF began a massive interdiction campaign known as Operation *Strangle*. The objective was the destruction of sufficient enemy supplies and equipment moving south to prevent an effective offensive from taking place. Enough, however, got through to help the Chinese make a drive on the 1st and 7th Marine Divisions' lines. All US Marine Corps Panther and Corsair units responded in strength as part of a large UN effort to help recover ground gained by the enemy. The aircraft also continued to hamper the movement of supplies to the frontlines. However, the success of the communist spring offensive demonstrated that even an effective aerial campaign is not always successful against a determined and well-resourced enemy.

When the statistics for VMF-311 were compiled at the end of June 1951 they revealed that the squadron's Panthers had flown a total of 2241 hours. Most of the sorties undertaken saw pilots performing CAS and interdiction for troops some 75 miles north of Seoul, although on some flights jets ranged eastward to the coast along the Sea of Japan. Time and time again the F9Fs proved their value in responding quickly to calls to aid hard-pressed troops. When a FAC called for help, US Marine Corps Panthers were usually on the scene long before the Corsairs. Not only was the F9F's speed a major plus point for VMF-311, its down-time for maintenance was proving to be lower than both the F4U and the AD. Unit records state that engine changes on its Panthers took an average of only two hours to complete. Despite VMF-311's high operational commitment, the unit lost only a single Panther (on 18 June) in combat.



**F9F-2B BuNo 123464 of VMF-311 is framed in the cross-hairs of Lt Col Evgeniy Pepelyaev's gunsight at a range of just 200 metres during an engagement between three Panthers and 15 MiG-15s in northwest North Korea on 21 July 1951. The Panther, flown by 1Lt Robert W Bell, was shot down by the Soviet ace moments later, Pepelyaev erroneously claiming that he had destroyed an F-94 Starfire (via SPM Aero)**

In July 1951 the Chinese began moving more effective anti-aircraft weapons closer to the frontlines. To counter this the Panthers started flying 16-aircraft attacks on these positions. The strikes included attacks with fragmentation bombs, as well as strafing runs. They proved to be so effective that conditions were made safer for the slower propeller types following the jets.

As VMF-311 seldom flew far enough into North Korean territory to encounter MiG-15s, 21 July was an exceptional day. A division of three Panthers flying a CAP over northwest Korea between Sunchon and Pyongyang was jumped by 15 MiGs from 196th Fighter Air Regiment, 324th Fighter Air Division. Despite the superior performance of the communist jets, the Panther pilots managed to elude them until a lucky cannon hit downed one of the F9Fs. Its pilot, 1Lt Robert W Bell, ejected safely over enemy territory and was captured.

The squadron continued to be heavily involved in CAS missions as the Chinese acted more aggressively than usual during the summer months of 1951. On 16 August Panther pilots carried out a remarkable mission in support of the US Army's 7th Division. Four F9Fs were loaded with napalm and 5-in HVARs, as well as full loads of 20 mm ammunition. The FAC reported that the pilots had dropped their weapons with deadly accuracy and then followed up with strafing runs. The damage inflicted on the enemy was so great that the embattled US troops were able to drive them from the hill they had been stoutly occupying in what amounted to a rout. Their efforts during this mission earned the aviators involved a letter of commendation from Maj Gen Claude Ferenbaugh, CO of the 7th Division. He said that the Panther pilots had done an outstanding job on behalf of his troops.

Most fighter-bombers flying missions north of Pyongyang were escorted by F-86s to protect them from the threat of attacks by MiG-15s. However, on 25 September a flight of eight F9Fs found themselves in a dangerous situation. Undertaking a rail-cutting mission 35 miles north of Pyongyang, on the west coast of Korea, the jets were suddenly bounced by 12 MiGs without warning. Still flying Panthers that were fully loaded with ordnance, the pilots immediately jettisoned their weapons and turned into

the oncoming enemy fighters. Even though they were still out of range, the Panther pilots fired long bursts from their 20 mm cannon at the MiGs despite there being no chance of them scoring any hits. After some quick manoeuvring the enemy fighters broke off their attacks and headed back towards the Yalu. No hits were reported by either side.

This encounter did nothing to impede VMF-311's efforts to damage the railway lines north of Pyongyang, however, as they continued to target them through September and October without any let-up.

**VMF-311's hardworking maintainers perform engine changes on F9F-2s in the open at Pohang (K-3) during the late summer of 1951. The Panther was designed so that its tail section could be detached just aft of the wing trailing edge, thus allowing easy access to the fighter's turbojet engine for maintenance or removal (US Marine Corps)**





As another Korean winter approached the tally of Panthers damaged by flak began to rise alarmingly – two jets were also shot down, following on from two lost to flak in August. This reflected an increase in the deployment of modern anti-aircraft weapons by the CPVA.

For the month of December 1951 VMF-311's records state that its pilots logged 845 flights and expended 62,179 20 mm cannon rounds. They also dropped 167 500-lb GP bombs as well as 1860 250-lb weapons. The smaller bombs proved highly effective against railway lines in particular. While flying CAS against enemy troops, they dropped 16 250-lb fragmentation bombs and fired 90 5-in HVARs. The month's missions were relatively short in length, with a total of 1353 flying hours logged. VMF-311's statistics during 1951 were impressive, but they had cost the unit 13 Panthers destroyed.

1952 did not get off to a great start either. On 3 January a three-ship element from VMF-311 was engaged in armed reconnaissance, searching for any signs of the enemy on the frozen, snow-covered terrain. The pilots descended to 2000 ft for a closer look when they encountered a wall of AAA about 50 miles north of Seoul. One of the Panthers took numerous hits and its pilot radioed that he was going to try making it back to base. The other two followed on his wing for about ten miles when, suddenly, the stricken F9F nosed over and crashed. Its pilot had no chance to get out.

With VMF-311's workload steadily increasing, it was decided to send a second Panther squadron to Korea. VMF-115 was duly instructed to fly its new F9F-4s from its home at Marine Corps Air Station Cherry Point, in North Carolina, to Naval Air Station San Diego to prepare for the move to Korea. After a brief training session in cold-weather survival, personnel (and their aircraft) embarked in the light carrier USS *Bataan* (CVL-29), which sailed on 27 January 1952.

Until then MAG-33 had been operating with just two squadrons. Now, all of a sudden, its size was doubled with the addition of another F9F unit, as well as the newly formed photo-reconnaissance VMJ-1 equipped with F2H-2P Banshees. While both squadrons undertook myriad familiarisation flights, VMF-311 remained the only jet-equipped unit within MAG-33 taking the fight to the enemy. On 28 March Capt Frank J Hubka flew the squadron's 10,000th sortie, although this milestone was tempered by the fact that VMF-311 had lost a single Panther in February and March – both pilots had been captured.

When VMF-115 reached Japan it followed a similar routine to that of VMF-311. Eight of the unit's pilots flew to Pohang AB and, after the required familiarisation flights with Panthers of VMF-311, they undertook

**On 21 May 1952 VMF-115 began using the newly developed anti-tank aircraft rockets (ATARs), having the previous month started exchanging its F9F-4s for ex-US Navy F9F-2s with fewer hours on their airframes. The unit flew a mixed force of nine 'Dash-2s' and 14 'Dash-4s' during 1952-53 until sufficient F9F-5s were available to re-equip VMF-115 in its entirety in late April 1953. These jets, seen at Suwon (K-13) in the early spring of 1952, are about to fly their second mission of the day which will end with their recovery at their home base of Pohang (K-3)**  
(Richard Schoeneman)

**Lt Col Darrell Irwin, CO of VMF-311, stands up in the cockpit of his F9F-2B (BuNo 123451) after returning to Pohang (K-3) at the end of yet another successful mission in May 1952. Irwin commanded the squadron from late February through to early June 1952. Note the large number of mission symbols painted on the fuselage of his aircraft. This jet was credited with flying 445 missions (totalling 1002 combat hours) during its time with 1st MAW. It subsequently flew 96 combat missions with VF-151 from *Boxer* between May and July 1953 (Bill Nowadnick)**

their first combat mission on 26 February. By 18 March the remainder of the squadron's aircraft had arrived from Itami AB, although two were duly lost in a mid-air collision near Yongwoi eight days later. Nevertheless, by month end VMF-115 was flying its share of the missions assigned to the two Panther units. Several of the sorties provided the squadron with an opportunity to evaluate the US Navy's new 2.75-in 'Mighty Mouse' rockets against a wide variety of targets. Personnel at Itami continued to do most of the major maintenance on the Pohang Panthers, and their workload remained high. The new unit was equipped with F9F-4s.

VMF-115 was tasked with interdicting, bombing and strafing the enemy's north-south railway lines. Lt Col Thomas M Coles recalled one particular sortie flown by the unit during this period;

'Our mission was to bomb a railway line and then continue with a high-speed strafing run on a highly concentrated group of anti-aircraft positions straight ahead of the target. The enemy round my Panther took in its nose, based on the curvature of souvenir pieces of that shell, was more like 80-90 mm in size. It did more damage than any 37 mm round could have done. It blew off the nose section of my aircraft all the way back to the firewall, leaving my four 20 mm guns shaped like pretzels. One moment I was flying in excess of 500 mph and the next I was doing 180 mph – it was as if I'd hit a brick wall. It seemed as if it took me three hours to make a 180-degree turn for home, outrunning the wall of tracers and big, fiery red exploding fireworks. A short time later I was landing on a muddy frontline strip about three miles inside friendly territory. As I turned off the main runway, my engine quit . . . out of gas!'

On 1 April VMF-115 was declared combat-ready and its pilots were no longer expected to fly missions with their more experienced counterparts from VMF-311. The unit now had a full complement of Panthers, which allowed it to fly interdiction, armed reconnaissance, RESCAP, CAS, CAP and photo-reconnaissance escort missions, as well as ferry flights. Most of these missions were flown on an almost daily basis, which put a great deal of strain on the maintenance personnel. VMF-115 also introduced a few minor changes in tactics too. For attacks on the enemy's railway system each pilot was told to 'shallow out' his dive to about 20 degrees just before reaching the release point. This prevented a high-G pull-out and reduced the chance of 'mushing' into the blast of the bomb, while at the same time improving accuracy.





In April the squadron encountered major problems with engine compressors, which caused a fatal accident on the 23rd (three days earlier, VMF-115 had suffered its first combat fatality). This was the fourth such compressor-related incident, although the first three were not fatal. These failures were of such great concern to MAG-33 that it led to a request for the 'Dash-4s' to be replaced by F9F-2s. On 12 May this process began when the first F9F-4s were ferried back to Naval Air Facility Atsugi, in Japan, and F9F-2s were sent to Pohang. VMF-115 resumed combat operations on 21 May. It was hoped that these aircraft would allow VMF-115 to employ the new ATARs. However, the first batch of 16 'Dash-2s' issued to the unit were in such poor condition that some had non-functioning ejection seats! They could not be repaired on-site or even at the rear maintenance facility in Japan. There was some relief when US Navy Panther squadrons VF-52 and VF-111 handed over eight 'Dash-2s' in excellent condition before heading home with ATG-1 embarked in *Valley Forge*.

While VMF-115 struggled to complete its jet swap, VMF-311 was experiencing problems of its own. The unit lost four Panthers in eight days between 10 and 18 May, with two of these losses being due to enemy action. Two pilots were killed and one captured.

Carrying the VT-fused 260-lb fragmentation bombs also proved to be dangerous, with VMF-115 losing two Panthers on 14 June in a fluke explosion shortly after takeoff. The blast instantly killed the pilot of the

**Land-based Panthers from VMF-115 and VMF-311 carried a variety of ordnance on CAS and interdiction missions. This VMF-311 F9F-2 jet, for example, is loaded with three 5-in HVARs beneath each wing. Note the unpaved surface on which the Panther has been parked – adequate in the summer but less than ideal in wet winter weather. All US Marine Corps Panthers were capable of reaching targets close to the Yalu River without the need for external fuel tanks, but their loiter time over the target area was somewhat limited (Bill Rockwell)**



**US Marine Corps Panthers were often armed with 'Tiny Tim' rockets, as this photograph confirms. These rockets were used towards the end of World War 2 by both US Navy and US Marine Corps aircraft, the weapons having a top speed of approximately 246 metres per second and a range of about 1500 metres. They were very effective against tanks and trains. This 'Tiny Tim' has been uploaded onto F9F-2 BuNo 125116, which was subsequently sold on to the Comando de Aviación Naval Argentina in December 1958 (Frank Drury)**



**VMF-115's F9Fs concentrated on interdiction missions, during which enemy transport and infrastructure came under attack. While standard ordnance loads for US Navy Panthers included four 250-lb GP bombs, land-based Marine Corps aircraft were known to carry 500- and even 1000-lb GPs. The weapons were fused for detonation with delays ranging from instantaneous to six hours. Awaiting ordnance, this F9F-2 featured rare wingtip tank art when it was photographed at Pohang (K-3) during the late summer of 1952**  
(Ralph Reed)

During the early months of 1953 VMF-311 concentrated on supporting the 5th Marine Division when it was bogged down in rain-swollen rice paddies during the battle for 'Outpost Vegas'. This area was the focal point for a big Chinese troop build-up ahead of a spring offensive. This VMF-311 Panther is undergoing major maintenance at Pohang (K-3) following heavy usage during the 'Outpost Vegas' operation. The AD Skyraider at right was operated by VMA-121, which was also part of MAG-33 (Ed Pierkowski)

some of the problems with this ordnance were the result of certain safety precautions not being followed during the arming of aircraft.

Maj Henry W Hise of VMF-311 was airborne on the day VMF-115 lost the two Panthers, both squadrons having been sent off together to attack airfields east of Pyongyang. All the jets assigned to this mission were armed with VT-fused fragmentation bombs;

'This was one of the first times we'd flown deep into North Korea with the VT-fused frags. VMF-311 was the lead element of the flight and VMF-115 brought up the rear with at least a dozen of its Panthers. Each F9F carried four of these bombs. You could look out at the leading edge of the wings and see each bomb's nose and fuse. We were over enemy territory at about 8000 ft and getting ready to go after our assigned targets when I heard a VMF-115 pilot say that one of their Panthers had just blown up. The wingman's aircraft had received fatal damage from the explosion, forcing him to get out over enemy territory.

'It took several minutes for me to realise it was a malfunctioning VT bomb that had caused the explosion. We pressed on against our targets nevertheless, and it seemed a very long time before all of us got rid of the VT-fused bombs. Some of the VMF-115 guys who'd seen the Panther explode flew out over the sea and jettisoned their bombs as a safety precaution. After a thorough investigation it was determined that the ordnance personnel in VMF-115 had improperly installed the arming





wires. None of the VMF-311 aircraft had any trouble with these bombs, so the problem was eventually solved.'

In late June both Panther squadrons flew a combined attack on a large power station complex at the Chosin Reservoir. It would be a two-day mission, with very little let-up between sorties. On the first day 22 Panthers from VMF-311 and 18 from VMF-115 took off from Pohang AB with full bomb loads. The results were excellent. Despite heavy ground fire all aircraft returned safely and, apart from one wall, the power station was completely levelled. The following day 20 F9Fs from VMF-311 and 15 from VMF-115 again attacked the complex and destroyed several other buildings.

The pilots involved expected intense anti-aircraft fire on the second day, and they got it too. Only one of the Panthers was hit, however, and it returned safely to base along with the others thanks to skill and a bit of luck. The target imagery subsequently brought back by a MAG-33 photo-reconnaissance aircraft showed that the target had been destroyed. This was the first time that both squadrons had been massed for a strike that deep into North Korea. The F9Fs carried much lighter ordnance loads than their sister Corsair and Skyraider squadrons in MAG-12, but their excellent bombing results put to rest the doubts, held by some in the 1st Marine Air Wing (MAW), about the Panther's attack capability.

## SUMMER SORTIES

The summer months in Korea were all the same – hot, humid and extremely dusty. Basically, the tasking of both US Marine Corps Panther squadrons remained the same, with most targets being located in and around the North Korean capital. It was on 11 July 1952 that VMF-115's pilots enjoyed one of the most outstanding days of operations since they had entered combat in-theatre. In three successive raids on Pyongyang, the squadron dropped 124 bombs totalling 54,000 lbs. It also fired

Photographed at Pohang (K-3) in August 1952, these aircraft were heavily tasked throughout that month supporting troops from the US Marine Corps, US Army, Republic of Korea Army and the British Army. VMF-115 also targeted key infrastructure targets in Pyongyang. In spite of its Panthers exhibiting signs of combat weariness as August progressed, VMF-115 broke all monthly operational records by completing 705 combat sorties totalling 1256 flying hours (*Rocky Demopoulos*)

Capt Gene Autrey of VMF-115 poses with two of the squadron's Panthers at Pohang (K-3) in the autumn of 1952. These aircraft have just returned from an interdiction mission over North Korea, hence the gunpowder residue around the cannon ports. Soon, they would be swarmed over by maintenance and ordnance crews, preparing them for the next day's missions (*Gene Autrey*)





**Capt Rocky Demopoulos of VMF-115 poses beside his Panther (BuNo 127143) at Pohang (K-3) in August 1952. All squadron aircraft displayed the 'AE' tail code on their vertical stabilisers. The unit started flying combat missions in Korea from 19 February 1952, when it was equipped with only eight F9F-2s because the squadron's remaining jets were still at Itami AB, in Japan. By the middle of March the squadron had its full complement of personnel and aircraft (*Rocky Demopoulos*)**

September 1952 was by far the worst month of the war in terms of attrition for US Marine Corps Panther units. On the 10th no fewer than six F9F-4s from VMF-115 crashed into Unmun-san mountain near Pohang (K-3) while trying to land at the airfield in poor weather following the completion of a mission. All six pilots were killed. VMF-311 lost three more aircraft between 19 and 30 September, although only one of these fell to enemy action. The last aircraft destroyed in September was F9F-2 BuNo 125083 seen here, which suffered an engine flameout short of Runway 2 at Pohang (K-3). Sadly, the pilot of the fighter, 2Lt Odyce W Livingston, subsequently succumbed to the injuries he had received in the crash (*Rocky Demopoulos*)

3817 rounds of 20 mm ammunition during multiple strafing attacks on a wide variety of military targets.

Immediately after these attacks an additional capability was established for the versatile US Marine Corps Panthers when squadrons started using wing-mounted external tanks for laying smoke screens. This new capability was often used by VMF-115, especially when helping friendly troops fighting at close quarters with numerically superior Chinese forces.

VMF-311's F9Fs continued with their priority tasking of armed reconnaissance, with a large number of these missions being flown north of Pyongyang. Since the US Marine Corps jets only occasionally received top cover from F-86 Sabres, they ran the risk of encountering MiG-15s. Maj Louis H Steman recalled the time the strike force he was leading was jumped by a large number of MiGs;

'Our two four-aeroplane divisions had been tasked with hitting a major supply dump together with a number of heavy AAA gun emplacements along the southern bank of the Yalu River. Right after takeoff one of the Panthers had to abort. That cut us down to seven aircraft. It was a long flight from Pohang all the way up to the Yalu, and it meant stretching our fuel.





'All was normal until I spotted the target and began a high-speed descending bomb run. Seconds into it a MiG-15 flashed by the nose of my F9F. At the same time one of our pilots yelled out, "Watch out for those F-86s!" I radioed back that they weren't Sabres but MiG-15s. I counted seven more coming in behind the first – a total of eight jets. For a split second I considered dumping our bombs and turning the flight into the oncoming MiGs, with all of us being at 25,000 ft – but not for long. On a second glance I saw the swept-wing fighters start climbing in a 270-degree turn to the left to swing in on our tails. I discarded the idea of a fight at altitude and decided that all of us should press on with the bombing run on our original targets. I radioed to the others to stay close, and only use a minimum amount of speed brakes in the dive so that we could hit our target and then turn quickly into the MiGs.

'My plan was to draw them down and fight it out at treetop level so they'd burn their fuel much faster. They'd already jettisoned their external fuel tanks, and this strategy also prevented them from making a high-side firing run on us. I'd just released my bombs on the supply dump when the last Panther in our formation radioed, "Help! They're shooting at me". I immediately went into a tight turn to see all kinds of enemy fighters following our formation. As one of our pilots passed right below me I saw he had a MiG on his tail.

'I tightened my turn for a clear shot at him. I was out of range but I estimated a "Kentucky windage lead" and fired a burst of 20 mm. This caused the enemy pilot to pull up sharply with a huge puff of black smoke. He easily climbed away from us. One second later I saw one chasing another of our pilots. Again I pulled in for a short burst. This



**VMF-311's Capt Ted Williams was attacking targets on Highway 1 south of Pyongyang on 16 February 1953 when his F9F-5 (BuNo 126109) was hit by ground fire and caught fire. Needing to land as soon as possible, Williams nursed his fighter back to Suwon (K-13), where he belied it in on fire. The jet skidded along the tarmac on its belly for almost a mile with sparks flying from it. The nose promptly burst into flames, threatening the cockpit. The pilot opened his canopy, struggled out and limped away. The aircraft, which had only been in Korea since 11 January 1953, was a total wreck, but its pilot escaped with minor injuries (John Verdi)**

**Major League Baseball player Ted Williams was one of the most famous pilots to see action in Korea, serving with VMF-311 between February and July 1953. Others who would go on to achieve fame after flying Panthers in Korea were future astronauts John Glenn and Neil Armstrong (US Navy)**

**Maj John Glenn also saw action with VMF-311 in Korea in 1953. A veteran of 59 combat missions in the South Pacific during World War 2, Glenn completed an additional 63 sorties in Panthers – whilst with VMF-311 he gained the dubious nickname ‘magnet ass’ from his apparent ability to attract enemy flak. Twice he returned to base with more than 250 flak holes in his aircraft, as seen in this photograph. Glenn flew for a time with Ted Williams, and subsequently completed a second Korean combat tour on an inter-service exchange programme with the USAF’s 51st Fighter Wing. He logged 27 missions in the F-86F Sabre, shooting down three MiG-15s near the Yalu River in the final days of the conflict (*Peter Mersky*)**



time I was a lot closer, but after I fired a couple of rounds my guns jammed. I knew that I could no longer do much good against them, but as I saw another enemy jet coming straight towards me I went for him on a collision course at full speed. It not only scared the hell out of the MiG pilot, it scared me too.’

The fight broke apart quickly and the enemy pilots left the scene as fast as they had arrived. The Panther pilot who had been bringing up the rear was calling for help but no one could see him. Maj Steman radioed him to head for the sea as fast as he could because it was known that the MiGs were squeamish about fighting over water. By this time, due to the violent manoeuvring, the ‘tail-end Charlie’ Panther was too low on fuel to reach Pohang so he landed at Suwon to refuel. When he reached the airfield all the squadron pilots and groundcrew members gathered round to look over his Panther, which had lost half of its horizontal stabiliser. The pilot stated that he was still shaken after seeing the ‘orange golf balls’ whizzing past his aircraft. All seven Panthers returned safely to base.

Maj Henry Hise, who assumed command of VMF-311 in June 1952, explained how his unit went about bombing targets even in bad weather; ‘We frequently flew as many as 20 aircraft stacked in formation through several thousand feet of cloud that sometimes stretched all the way to the target. On arriving at the initial point in the clouds, the letdown would be started. If we didn’t break out the flight would climb and drop all ordnance under the guidance of radar. The normal approach altitude was 25,000 ft, with a ground speed of 270 knots. Then we’d make a high-speed approach at 14,000 ft. When that happened we’d begin a dive at a 45-degree angle all the way down to 3000 ft, drop our bombs and pull out in level flight at about 1000 ft.’

Both VMF-115 and VMF-311 continued to pound enemy targets every day. Many of these missions were flown by a mixture of aircraft from both units. By the summer of 1952 the Chinese had ringed key targets with the latest automatic weapons, usually provided by the Soviets. Through a combination of good luck and perfect timing both squadrons only suffered one loss in July and none in August. September losses would, however, be devastating to both units.

On 29 August Panthers from VMF-115 and VMF-311 combined with other MAG-33 aircraft on three successive missions to attack major targets

at Pyongyang. These included the munitions bureau complex, the ministry of finance and a big locomotive repair workshop. When the dust settled at the end of the day the Panthers had delivered 73,000 lbs of bombs while braving heavy anti-aircraft fire.

In August VMF-115 had sent some of its maintenance personnel to Japan to prepare the F9F-4s that were to replace the unit’s ageing and heavily used F9F-2s. Regardless of the shortage of equipment and spare parts, the squadron broke its



Cpts Ritchie and Lovette, Lt Davis (bottom of photograph) and Maj Walley of VMF-311 conduct a pre-mission briefing at Pohang (K-3) on 10 March 1953 (*US Marine Corps*)

previous operational records when its pilots logged a total of 705 combat sorties and flew 1256 combat hours during the course of the month. These figures are impressive considering that the tail end of at least one major typhoon had swept through the area, the 50 mph winds the storm brought with it causing a brief suspension of operations. For the next few months the average aircraft complement of VMF-115 included nine F9F-2s and 15 F9F-4s.

If August 1952 had been a successful month for the land-based Panther units, September was by far the worst of the war in terms of attrition. On the 10th no fewer than six F9F-4s from VMF-115 crashed into a mountain near Pohang (K-3) while trying to land at the airfield in poor weather following the completion of a mission. All six pilots were killed. VMF-311 lost three more aircraft between 19 and 30 September, although only one of these fell to enemy action.



Panthers (both 'Dash-2s' and 'Dash-4s') of Maj James 'Buzz' Sawyer's VMF-115 taxi down the runway at Pohang (K-3) on 15 March 1953. Each jet appears to be armed with three 250-lb bombs beneath each wing (*US Marine Corps*)

Fortunately, no further Panther losses were suffered by either unit until December, when each squadron had single jets downed by AAA during the first week of December. VMF-115 lost an F9F-2 and an F9F-4 to AAA in January 1953 and the following month VMF-311 had an aircraft limp back to Suwon after being hit by small arms fire. Already alight when the pilot landed, the jet was consumed by flames shortly after it was abandoned on the runway.

February 1953 saw all land-based Panthers fitted with new Aero 14B bomb racks, which allowed the jets to carry six 500-lb GP or two 1000-lb GP bombs, or a combination of the two up to a weight of 3000 lbs.

As previously mentioned, on 15 April the Chinese launched a determined offensive in a bid to gain territory before the war ended. Both Panther squadrons put in a maximum effort, with VMF-311 attacking one flank and VMF-115 striking the other. By dusk the latter unit had established an all-time record for the Korean conflict by flying 114 sorties in which 127.2 tons of bombs were dropped. This effort, combined with the missions flown by FEAF aircraft, halted the offensive in its tracks.

On 28 April VMF-115 received 18 new F9F-5s powered by Pratt & Whitney J48-P engines. This gave them a top speed of 579 mph and a higher ceiling of 42,800 ft. VMF-311 also received 'Dash-5s' early the following month, and two of these jets were lost in bad weather on 6 May. One pilot was killed when he hit a mountain trying to descend through cloud and his wingman was rescued after he ditched in the sea once his fuel ran out.

Fierce fighting continued to the very end of the Korean conflict, with VMF-311 suffering its worst day for losses on 17 July – just ten days before the ceasefire ended the war. Three Panthers crashed into the sea off Pusan after being hit by AAA and only one pilot was rescued. A fourth jet was set on fire at Pohang when its 20 mm ammunition was ignited by the jet blast from another Panther.

By 25 July the Chinese were well aware that the end of the war was just a few days away, and they did everything they could to gain ground from the US Marine Corps divisions in the frontline. Both Panther squadrons answered the call, with all available aircraft flying from dawn to past dusk to deliver 32 tons of bombs. Although the Chinese had gained

**This veteran F9F-2 was assigned to Marine Air Group 33 (hence the unusual 'WM' tail code) and flown by its staff officers. Maintained by VMF-311 and used by the unit when it was short of serviceable Panthers for operational missions, the fighter was photographed at Pyongtaek (K-6) in the final weeks of the war (Lawrence Alley)**





approximately two miles of ground, the cost to them had been 72,000 casualties. Final figures from the 1st Marine Air Wing revealed that on the war's final day its aircraft, including F4Us, ADs and F9Fs, had logged a total of 222 sorties and dropped more than 300 tons of bombs.

Once the ceasefire came into effect on 27 July both VMF-115 and VMF-311 immediately halted all combat flying. Records for VMF-115 showed that its pilots had flown 9250 combat sorties, totalling 15,350 flying hours, during the war. In 30 months of Korea War duty VMF-311 had flown a staggering 18,851 sorties. In the weeks following the ceasefire both units maintained their training programmes so as to ensure that pilots remained in a high state of combat readiness. These were conducted over South Korea bombing ranges, and included a good deal of instrument flying.

US Marine Corps Panther units had joined their more numerous US Navy counterparts in playing a major role in containing communist efforts during the Korean conflict. And although the Grumman F9F had been overshadowed in popular imagination by the faster, swept-wing F-86 Sabre (given its outstanding success in combat with the Soviet-built MiG-15, that was inevitable), the straight-wing Panther proved to be a typical product of the Grumman 'iron works'. It was rugged, reliable and fast enough to demand respect.

During three years of bitter fighting the Panther had been developed into a useful weapons platform, and evolving tactics enabled it to work well with the piston-engined types then in service with the US Navy and the US Marine Corps. The Panther racked up its share of 'firsts' too. As a US Navy jet, it was the first to fly operational missions from a carrier, the first to fly in combat and the first to shoot down an enemy aircraft. And even if the F9F was not as quick as the MiG-15, forcing its pilots to rely on their superior training and experience, Naval Aviators were still able to use the aircraft to shoot down five of the Soviet jets without loss.

**In the war's later stages both VMF-115 and VMF-311 began flying missions from Pyongyang. This VMF-311 aircraft has just returned from a bombing mission in March 1953, the fighter having expended all of its ordnance. This angle provides a good view of the dive brakes used by F9Fs on their dive-bombing missions (E S 'Mule' Holmberg)**

## APPENDICES

## APPENDIX A

## F9F CARRIER DEPLOYMENTS

**USS Valley Forge (CV-45)**

1 May 1950 to 1 December 1950

CVG-5

VF-51 F9F-3 tail code S

VF-52 F9F-3 tail code S

**USS Philippine Sea (CV-47)**

5 July 1950 to 26 March 1951

CVG-11

VF-111 F9F-2 tail code V

VF-112 F9F-2B tail code V

**USS Leyte (CV-32)**

6 September 1950 to 3 February 1951

CVG-3

VF-31 F9F-2 tail code K

**USS Princeton (CV-37)**

9 November 1950 to 29 May 1951

CVG-19

VF-191 F9F-2 tail code B

VC-61 Det E F9F-2P tail code PP

**USS Boxer (CV-21)**

2 March 1951 to 24 October 1951

CVG-101

VF-721 F9F-2B tail code A

VC-61 Det F F9F-2P tail code PP

**USS Bon Homme Richard (CV-31)**

10 May 1951 to 17 December 1951

CVG-102

VF-781 F9F-2B tail code D

VC-61 Det G F9F-2P tail code PP

**USS Princeton (CV-37)**

31 May 1951 to 29 August 1951

CVG-19X

VF-23 F9F-2 tail code B

VC-61 Det ? F9F-2P tail code PP

**USS Essex (CV-9)**

26 June 1951 to 25 March 1952

CVG-5

VF-51 F9F-2 tail code S

VC-61 Det B F9F-2P tail code PP

**USS Antietam (CV-36)**

8 September 1951 to 2 May 1952

CVG-15

VF-831 F9F-2 tail code H

VF-837 F9F-2B tail code H

VC-61 Det D F9F-2P tail code PP

**USS Valley Forge (CV-45)**

15 October 1951 to 3 July 1952

ATG-1

VF-111 F9F-2 tail code V

VF-52 F9F-2 tail code S

VC-61 Det H F9F-2P tail code PP

**USS Philippine Sea (CV-47)**

31 December 1951 to 8 August 1952

CVG-11

VF-112 F9F-2 tail code V

VC-61 Det C F9F-2P tail code PP

**USS Boxer (CV-21)**

8 February 1952 to 26 September 1952

CVG-2

VF-24 F9F-2 tail code M

VC-61 Det A F9F-2P tail code PP

**USS Princeton (CV-37)**

21 March 1952 to 3 November 1952

CVG-19

VF-191 F9F-2 tail code B

VC-61 Det E F9F-2P tail code PP

**USS Bon Homme Richard (CV-31)**

20 May 1952 to 8 January 1953

CVG-7

VF-71 F9F-2 tail code L

VF-72 F9F-2 tail code L

VC-61 Det N F9F-2P tail code PP

**USS Essex (CV-9)**

16 June 1952 to 6 February 1953

ATG-2

VF-23 F9F-2 tail code M

VF-821 (re-designated VF-143 4/2/53) F9F-2 tail code A

**USS Kearsarge (CVA-33)**

11 August 1952 to 17 March 1953

CVG-101 (re-designated CVG-14 4/2/53)

VF-721 (re-designated VF-141 4/2/53) F9F-2 tail code A

**USS Oriskany (CVA-34)**

15 September 1952 to 18 May 1953

CVG-102 (re-designated CVG-12 4/2/53)

VF-781 (re-designated VF-121 4/2/53) F9F-5 tail code D

VF-783 (re-designated VF-122 4/2/53) F9F-5 tail code D

**USS Valley Forge (CVA-45)**

20 November 1952 to 25 June 1953

CVG-5

VF-51 F9F-5 tail code S

VF-53 F9F-5 tail code S

VC-61 Det B F9F-5P tail code PP

**USS Philippine Sea (CVA-47)**

15 December 1952 to 14 August 1953

CVG-9

VF-91 F9F-2 tail code N

VF-93 F9F-2 tail code N

VC-61 Det M F9F-5P tail code PP

**USS Princeton (CVA-37)**

24 January 1953 to 21 September 1953

CVG-15

VF-831 (re-designated VF-153 4/2/53) F9F-5 tail code H

VF-837 (re-designated VF-154 4/2/53) F9F-5 tail code H

VC-61 Det D F9F-5P tail code PP

**USS Boxer (CVA-21)**

30 March 1953 to 28 November 1953

ATG-1

VF-111 (crossdecked to  
CVA-39 30/6/53 F9F-5 tail code V

VF-52 F9F-2 tail code S

VF-151 F9F-2 tail code H

**USS Lake Champlain (CVA-39)**

26 April 1953 to 4 December 1953

CVG-4

VF-111 (crossdecked from CVA-21 30/6/53) F9F-5 tail code V

**APPENDIX B****US NAVY F9F KOREAN WAR LOSSES (COMBAT AND OPERATIONAL)**

| Date     | Squadron    | Ship              |          |             |                   |
|----------|-------------|-------------------|----------|-------------|-------------------|
| 16/7/50  | VF-51       | Valley Forge      | 17/1/52  | VF-837      | Antietam          |
| 7/8/50   | VF-112      | Philippine Sea    | 26/1/52  | VF-51       | Essex             |
| 12/8/50  | VF-51       | Valley Forge      | 29/1/52  | VC-61 Det D | Antietam          |
| 20/8/50  | VF-112      | Philippine Sea    | 4/2/52   | VF-837      | Antietam          |
| 29/8/50  | VF-111      | Philippine Sea    | 19/2/52  | VF-52       | Valley Forge      |
| 18/9/50  | VF-111      | Philippine Sea    | 19/2/52  | VF-52       | Valley Forge      |
| 19/9/50  | VF-51       | Valley Forge      | 11/3/52  | VC-61 Det H | Valley Forge      |
| 24/9/50  | VF-111      | Philippine Sea    | 17/3/52  | VF-52       | Valley Forge      |
| 29/9/50  | VF-111      | Philippine Sea    | 21/3/52  | VF-52       | Valley Forge      |
| 19/10/50 | VF-31       | Leyte             | 2/5/52   | VF-52       | Valley Forge      |
| 27/11/50 | VF-112      | Philippine Sea    | 2/5/52   | VF-111      | Valley Forge      |
| 30/11/50 | VF-31       | Leyte             | 2/5/52   | VF-111      | Valley Forge      |
| 9/12/50  | VF-31       | Leyte             | 25/5/52  | VF-24       | Boxer             |
| 19/12/50 | VF-112      | Philippine Sea    | 14/6/52  | VF-191      | Princeton         |
| 20/12/50 | VF-31       | Leyte             | 20/6/52  | VF-191      | Princeton         |
| 8/3/51   | VF-191      | Princeton         | 4/7/52   | VF-24       | Boxer             |
| 6/5/51   | VF-191      | Princeton         | 11/7/52  | VF-72       | Bon Homme Richard |
| 7/5/51   | VF-191      | Princeton         | 22/7/52  | VF-72       | Bon Homme Richard |
| 30/5/51  | VF-721      | Boxer             | 27/7/52  | VF-191      | Princeton         |
| 31/5/51  | VF-781      | Bon Homme Richard | 31/7/52  | VF-71       | Bon Homme Richard |
| 5/6/51   | VF-23       | Princeton         | 16/10/52 | VF-72       | Bon Homme Richard |
| 3/7/51   | VF-781      | Bon Homme Richard | 17/10/52 | VF-23       | Essex             |
| 27/7/51  | VF-781      | Bon Homme Richard | 1/11/52  | VF-721      | Kearsarge         |
| 28/7/51  | VF-23       | Princeton         | 21/11/52 | VF-23       | Essex             |
| 14/8/51  | VF-721      | Boxer             | 21/11/52 | VF-721      | Kearsarge         |
| 24/8/51  | VF-781      | Bon Homme Richard | 22/11/52 | VF-23       | Essex             |
| 3/9/51   | VF-51       | Essex             | 23/11/52 | VF-721      | Kearsarge         |
| 4/9/51   | VF-51       | Essex             | 28/12/52 | VF-721      | Kearsarge         |
| 4/9/51   | VF-51       | Essex             | 28/12/52 | VF-23       | Essex             |
| 16/9/51  | VF-51       | Essex             | 3/1/53   | VF-51       | Valley Forge      |
| 16/9/51  | VF-51       | Essex             | 18/1/53  | VF-783      | Oriskany          |
| 21/10/51 | VC-61 Det D | Antietam          | 22/1/53  | VF-53       | Valley Forge      |
| 2/11/51  | VC-61 Det D | Antietam          | 31/1/53  | VF-93       | Philippine Sea    |
| 4/11/51  | VF-831      | Antietam          | 2/2/53   | VF-781      | Oriskany          |
| 4/11/51  | VF-831      | Antietam          | 16/2/53  | VF-93       | Philippine Sea    |
| 13/11/51 | VF-781      | Bon Homme Richard | 18/2/53  | VF-93       | Philippine Sea    |
| 17/11/51 | VF-781      | Bon Homme Richard | 24/2/53  | VF-51       | Valley Forge      |
| 21/11/51 | VF-781      | Bon Homme Richard | 1/3/53   | VF-91       | Philippine Sea    |
| 21/12/51 | VF-52       | Valley Forge      | 9/3/53   | VF-51       | Valley Forge      |
| 28/12/51 | VF-52       | Valley Forge      | 17/3/53  | VF-153      | Princeton         |
| 3/1/52   | VF-111      | Valley Forge      | 20/3/53  | VF-122      | Oriskany          |
| 6/1/52   | VF-51       | Essex             | 22/3/53  | VF-122      | Oriskany          |
| 11/1/52  | VF-52       | Valley Forge      | 27/3/53  | VF-91       | Philippine Sea    |
|          |             |                   | 1/4/53   | VF-51       | Valley Forge      |

|         |        |                       |
|---------|--------|-----------------------|
| 13/4/53 | VF-122 | <i>Oriskany</i>       |
| 19/4/53 | VF-153 | <i>Princeton</i>      |
| 20/4/53 | VF-121 | <i>Oriskany</i>       |
| 21/4/53 | VF-153 | <i>Princeton</i>      |
| 23/4/53 | VF-154 | <i>Princeton</i>      |
| 25/4/53 | VF-153 | <i>Princeton</i>      |
| 28/4/53 | VF-154 | <i>Princeton</i>      |
| 6/5/53  | VF-153 | <i>Princeton</i>      |
| 13/5/53 | VF-153 | <i>Princeton</i>      |
| 2/6/53  | VF-52  | <i>Boxer</i>          |
| 13/6/53 | VF-153 | <i>Princeton</i>      |
| 19/6/53 | VF-111 | <i>Boxer</i>          |
| 19/6/53 | VF-91  | <i>Philippine Sea</i> |

|         |        |                       |
|---------|--------|-----------------------|
| 25/6/53 | VF-91  | <i>Philippine Sea</i> |
| 26/6/53 | VF-91  | <i>Philippine Sea</i> |
| 26/6/53 | VF-91  | <i>Philippine Sea</i> |
| 1/7/53  | VF-91  | <i>Philippine Sea</i> |
| 8/7/53  | VF-151 | <i>Boxer</i>          |
| 9/7/53  | VF-153 | <i>Princeton</i>      |
| 20/7/53 | VF-153 | <i>Princeton</i>      |
| 20/7/53 | VF-93  | <i>Philippine Sea</i> |
| 24/7/53 | VF-52  | <i>Boxer</i>          |
| 25/7/53 | VF-151 | <i>Boxer</i>          |
| 26/7/53 | VF-151 | <i>Boxer</i>          |
| 26/7/53 | VF-91  | <i>Philippine Sea</i> |

## US MARINE CORPS F9F KOREAN WAR LOSSES (COMBAT AND OPERATIONAL)

### Date Squadron

|          |         |         |         |
|----------|---------|---------|---------|
| 26/12/50 | VMF-311 | 14/6/52 | VMF-115 |
| 2/1/51   | VMF-311 | 14/6/52 | VMF-115 |
| 8/1/51   | VMF-311 | 20/6/52 | VMF-115 |
| 26/2/51  | VMF-311 | 21/7/52 | VMF-311 |
| 18/3/51  | VMF-311 | 10/9/52 | VMF-115 |
| 1/5/51   | VMF-311 | 10/9/52 | VMF-115 |
| 18/6/51  | VMF-311 | 10/9/52 | VMF-115 |
| 21/7/51  | VMF-311 | 10/9/52 | VMF-115 |
| 30/7/51  | MAG-33  | 10/9/52 | VMF-115 |
| 6/8/51   | VMF-311 | 10/9/52 | VMF-115 |
| 12/8/51  | VMF-311 | 19/9/52 | VMF-311 |
| 3/10/51  | VMF-311 | 22/9/52 | VMF-311 |
| 16/10/51 | VMF-311 | 30/9/52 | VMF-311 |
| 18/12/51 | VMF-311 | 3/12/52 | VMF-115 |
| 3/1/52   | VMF-311 | 5/12/52 | VMF-311 |
| 4/2/52   | VMF-311 | 15/1/53 | VMF-115 |
| 4/3/52   | VMF-311 | 19/1/53 | VMF-115 |
| 26/3/52  | VMF-115 | 16/2/53 | VMF-311 |
| 26/3/52  | VMF-115 | 23/3/53 | VMF-311 |
| 20/4/52  | VMF-115 | 6/5/53  | VMF-311 |
| 23/4/52  | VMF-115 | 6/5/53  | VMF-311 |
| 10/5/52  | VMF-311 | 17/7/53 | VMF-311 |
| 11/5/52  | VMF-311 | 17/7/53 | VMF-311 |
| 13/5/52  | VMF-311 | 17/7/53 | VMF-311 |
| 18/5/52  | VMF-311 | 17/7/53 | VMF-311 |

## COLOUR PLATES

### 1

#### F9F-3 BuNo 123071 of VF-51, USS *Valley Forge* (CV-45), July 1950

This aircraft was being flown by Lt(jg) Leonard Plog of VF-51 on 3 July 1950 when he shot down a NKPAF Yak-9 to score the first kill credited to a carrier-based jet fighter – note the victory symbol beneath the cockpit. The relatively rare F9F-3 (only 54 were built) was powered by an Allison J33 engine, rather than the Pratt & Whitney J42 found in the more numerous F9F-2. VF-51 and VF-52 were the only units to see combat with the 'Dash-3' in the Korean War. Unlike the F9F-2, the Allison-powered F9F-3 was not modified to carry external stores, making it of limited use as a fighter-bomber. Most were subsequently fitted with the J42 engine in place of the lower-thrust J33. Delivered to the US Navy in September 1949, BuNo 123071 completed a single war cruise with VF-51 and was then converted into an F9F-3P photo-reconnaissance

aircraft. Re-engined in late 1951 and re-designated as an F9F-2P, it returned to combat with VC-61 Det E as part of CVG-9 embarked in *Princeton* from 21 March 1952 through to 3 November 1952. In March 1954 the veteran jet became a drone-directing F9F-2KD, fitted with specialised radio equipment and numerous antennae, and it served in this role with Guided Missile Group 1, based at NAS Barbers Point, Hawaii, until retirement in July 1958.

### 2

#### F9F-2B BuNo 123511 of VF-112, USS *Philippine Sea* (CV-47), September 1950

On 17 September 1950, Ens Edward Jackson Jr was speeding along at 100 ft above enemy territory in this aircraft when he struck a cable strung across the Han River just south of Seoul. The fighter's canopy was smashed and Jackson was knocked unconscious for about 20 seconds. Coming to, he found his

jet in a steep climbing turn and his vision impaired by almost 100 per cent due to blood pouring down into his eyes from facial lacerations. Jackson radioed his wingman, Ens Dayl Crow, and requested altitude and direction instructions. He then slowed his machine down and flew 120 miles back to CV-47. On the downward leg, CVG-11's Landing Signal Officer, Lt(jg) L K Bruestle, took over from Crow and guided Jackson via radio commands to a miraculously 'routine' landing on the carrier's short, pitching, deck. BuNo 123511 was soon repaired, and it completed the rest of the cruise. Passed on to VF-191 in September 1951, the jet joined VF-23 in March 1952 and VF-93 five months later. It deployed with the latter unit as part of CVG-9 in December 1952, but was written off in a heavy landing aboard CVA-47 on 31 January 1953 – the very day CVG-9 commenced combat operations over Korea.

### 3

#### **F9F-2B BuNo 123497 of VF-31, USS *Leyte* (CV-32), November 1950**

This aircraft, which was occasionally flown by unit CO Lt Cdr George Simmons during VF-31's five months in combat over Korea, had been issued new to the squadron in April 1950. VF-31, based at NAS Quonset Point, Rhode Island, had been the first east coast squadron to receive the Panther in December 1948. When CV-32 departed TF 77 control in late January 1951 BuNo 123497 remained in Japan and was transferred to VMF-311 at Itami Air Base. It was one of 22 F9F-2Bs flown by the unit to Pohang (K-3) on 17 February, the jet remaining in the frontline with VMF-311 until it was sent back to Japan in November 1951 and then shipped to California for a six-month-long rebuild in the Overhaul and Repair (O&R) facility at NAS Alameda. BuNo 123497 was issued to NAS Moffett Field-based VF-93 in June 1952, and it returned to the Korean conflict with the unit as part of CVG-9, embarked in CVA-47, in December 1952. Following a second spell in the O&R at NAS Alameda between May and November 1953, the veteran jet was issued to VF-151 at NAS Alameda in December of that same year. It remained with this unit until the spring of 1955, when BuNo 123497 was passed on to Naval Air Advanced Training Command (NAATC) at NAS Chase Field, in Texas. In August 1956 the jet was retired to NAS Litchfield Park, Arizona.

### 4

#### **F9F-2 BuNo 127184 of VF-111, USS *Philippine Sea* (CV-47), November 1950**

This aircraft, usually flown by Lt Cdr WT Amen, CO of VF-111, is depicted here as it appeared on 9 November 1950 when its assigned pilot made history by scoring the first air-to-air victory in jet combat. His division of four Panthers from *Philippine Sea* had been escorting ADs and F4Us attacking bridges and power stations, the F9Fs being armed with light fragmentation bombs as well as their 20 mm cannon. While strafing anti-aircraft batteries they were attacked by MiG-15s. The enemy fighters came so close that the Panther pilots could clearly see that their opponents were wearing leather helmets. Amen and his wingman, Lt George Holloman, chased one of the enemy fighters, firing at it with 20 mm API tracer and HEI rounds – the latter was used because the attacking pilot could clearly see whether or not his aim was correct, as the shells exploded when they struck their target. Suddenly, the MiG, flown by Capt Mikhail Grachyov of 139th GvIAP, nosed into a dive, trailing smoke and flames. It hit the ground near the Yalu River, which marked the border between North Korea and China. Amen

and Holloman returned to their carrier to receive a hero's welcome. As it happened, Amen had been flying a Panther borrowed from VF-112, so although VF-111 got the credit for the victory, its sister squadron's aircraft displayed the MiG-15 kill marking. Subsequently issued to VMF-311 in June 1951, BuNo 127184 survived a further five months in combat in Korea before being shipped back to California in February 1953. After almost a decade of service with the US Navy and Marine Corps the aircraft was sold to the *Comando de Aviación Naval Argentina* in April 1963.

### 5

#### **F9F-2B BuNo 123657 of VF-721, USS *Boxer* (CV-21), April 1951**

Delivered to the US Navy in October 1950, this aircraft joined ex-US Naval Reserve unit VF-721 at NAS San Diego in December of that same year. Deploying to TF 77 with the unit as part of CVG-101 aboard *Boxer*, the aircraft (seen here armed with 5-in HVARs and 6.5-in ATARs) was badly damaged when it hit a tree while strafing on 5 April 1951. Lt Cdr Chester Gates managed to get the jet back to the carrier and land safely. The aircraft was subsequently offloaded in Japan and then shipped back to NAS Alameda to be repaired. Reissued to VF-721 at NAS Miramar in April 1952, the fighter was passed on to Fleet Air Service Squadron (FASRON) 7 at NAS San Diego three months later and then transferred to Miramar-based VF-122 in May 1953. By early 1954 BuNo 123657 had been relegated to training duties, serving initially with fleet utility squadron VU-7 at NAS San Diego and then the NAATC at NAS Chase Field. It was eventually stricken in October 1957.

### 6

#### **F9F-2B BuNo 123633 of VF-191 USS *Princeton* (CV-37), May 1951**

During the busy period between February and May 1951 the US Navy suffered numerous aircraft losses. One of them was this aircraft, BuNo 123633 (nicknamed *OCTANE SNIFFER*), which was shot down by AAA during a low-level strafing run near Inchon on 7 May. Its pilot, Ens Lowell R Brewer, was posted missing in action, presumed killed. Issued new to VF-191 in late October 1950, this aircraft had completed just 114 flying hours by the time it was lost. As CVG-19's sole Panther unit, VF-191 began the cruise with 17 F9F-2Bs and 28 pilots. Twenty-four hours prior to Brewer's demise the unit had lost BuNo 123601 and its pilot also to AAA. By this time the Chinese had assembled an effective logistics network defended by mobile gun emplacements. VF-191's primary tasking was interdiction and, due to the volume of targets, escorting F9F-2Ps from VC-61's Det E.

### 7

#### **F9F-2P BuNo 123615 of VC-61 Det E, USS *Princeton* (CV-37), May 1951**

This aircraft was originally built as an F9F-2 and issued new to VF-191 in September 1950. It was soon converted into a photo-reconnaissance F9F-2P, however, and issued to VC-61. Assigned to the unit's Det E, it participated in CVG-19's combat cruise aboard *Princeton* – this deployment was actually the first made to TF 77 by the F9F-2P variant. Ostensibly assigned to Lt(jg) G Elmies (his name was stencilled below the cockpit), this jet flew myriad sorties judging by the film canister mission tally just above the forward wing root. The aircraft returned to Korea in October 1951 when it was issued to MAG-33 at Pohang, BuNo 123615 flying photo-reconnaissance missions for 1st MAW units through to February 1952. It was then shipped back to

California, stripped of its camera equipment and re-designated as an F9F-2 in September of that same year. Following 14 months of service with several fleet support squadrons in Hawaii and California, the jet was issued to VMFT-10 at MCAS El Toro, California, in November 1953 and employed in the advanced training of future Panther pilots. It was written off with the unit in an accident on 23 September 1954.

## 8

### **F9F-2 BuNo 127207 of VMF-311, Pohang (K-3), August 1952**

Issued to the US Navy in July 1951, this aircraft was supplied to VF-112 at NAS San Diego the following month. In December 1951 the fighter embarked in CV-47 with the rest of CVG-11 as VF-112 commenced its second combat cruise to Korea. Sent ashore to FASRON 11 in Japan in July 1952, BuNo 127207 was assigned to VMF-311 at Pohang (K-3) later that same month. Soon after joining the Marine Corps the fighter was adorned with this unique Panther with claws motif. Returning to FASRON 11 in March 1953, the aircraft was shipped back to California the following month and eventually assigned to Advanced Training Unit (ATU) 102 at NAS Kingsville, Texas, in October 1953. The Panther subsequently served with ATU-206 at NAS Pensacola until it was grounded in June 1958.

## 9

### **F9F-2 BuNo 127174 of VF-111, USS *Valley Forge* (CV-45), March 1952**

This F9F-2 was one of 16 that equipped VF-111 on board *Valley Forge* in the early spring of 1952, the unit being led by Lt Cdr John W Ramsey. The senior Naval Aviator amongst the 25 assigned to VF-111 for this deployment, Ramsey previously served with the squadron in World War 2 when it was VF-11, seeing combat in defence of Guadalcanal in 1943. Issued new to VF-111 in July 1951, BuNo 127174 remained in Japan with FASRON 11 when CV-45 ended its combat cruise in July 1952. Issued as an attrition replacement to VF-24, embarked in CV-21, in August of that year, the fighter was returned to FASRON 11 when *Boxer* left TF 77 in September 1952. The jet was then assigned to VF-721, embarked in CVA-33, in October, and it completed the unit's combat cruise and returned to NAS Miramar in March 1953 – by then VF-721 had been re-designated VF-141. Overhauled and then stored for the next 14 months, BuNo 127174 was assigned to ATU-202 at NAS Kingsville in May 1954. The fighter was placed in storage two years later and stricken in August 1957.

## 10

### **F9F-2 BuNo 125088 of VF-831, USS *Antietam* (CV-36), March 1952**

During *Antietam*'s sole Korean War combat cruise CVG-15 boasted two squadrons of Panthers, VF-831 and VF-837. In February-March 1952 the carrier air group was averaging around 90 sorties per day as part of a major TF 77 campaign to prevent the Chinese from building up supplies and equipment for an early spring offensive. Records show that between 2 February and 17 March, 12 Panthers returned to the carrier with significant damage caused by ground fire, and two were lost (one of those was a F9F-2P). Boasting an impressive mission tally, BuNo 125088 had been issued new to VF-831 in May 1951. Passed on to VF-111 embarked in CV-45 when CV-36 left TF 77 in May 1952, the jet subsequently joined VMF-115 at Pohang (K-3) via FASRON 11 two months later. It was eventually returned to the O&R at Alameda in January

1953 and was then transferred to VMA-323 at MCAS El Toro, California, six months later. The jet served with several other Marine Corps units until assigned to ATU-201 at NAS Corpus Christi, Texas, in February 1955. Its final assignment was with ATU-206 at NAS Pensacola, the jet being used in the tuition of 'nugget' Naval Aviators from August 1957 until it was stricken in June of the following year.

## 11

### **F9F-2B BuNo 123702 of VF-781, USS *Bon Homme Richard* (CV-31), November 1951**

This aircraft was operated by VF-781, the sole F9F squadron embarked in *Bon Homme Richard* during the vessel's 1951 combat cruise. CVG-102 records show that during its first 47 days of operations in May-June 1951, the squadron expended 210,000 rounds of 20 mm ammunition, most of which was fired during low-level attacks on road and rail traffic. Strafing runs made the aircraft vulnerable to small and medium calibre weapons, and VF-781 lost seven Panthers – albeit not all of them to enemy action – during its combat cruise. Many others returned to the ship having sustained multiple flak hits. One battle-damaged aircraft hit the deck so hard that it jumped the arrestor wires and slammed into the crash barrier. Two of the Panther losses were attributed to defective catapult launches, while a third was caused by an engine flame-out just as the aircraft reached the end of the flightdeck. One Panther that survived the high attrition rate was BuNo 123702, nicknamed *PaperDoll*. This aircraft was a two-tour veteran of the Korean War. Delivered new to VF-23 in January 1951, the fighter was transferred to VF-781 four months later. Following its participation in CVG-102's combat cruise aboard CV-31, the aircraft was passed on to VMF-311 as an attrition replacement. BuNo 123702 saw further action from Pohang (K-3) until late August 1952, at which point it was sent to FASRON 11 in Japan. The war-weary machine was later shipped back to California, where it remained in the employ of a succession of FASRONS until assigned to VF-124 at Miramar in late August 1953. In October 1954 the jet joined VMFF-10, and it continued to be flown by a series of training units (including ATU-201) until placed in storage at NAS Litchfield Park in November 1957.

## 12

### **F9F-2 BuNo 125122 of VF-51, USS *Essex* (CV-9), September 1951**

Ens Neil Armstrong, who subsequently became the first man to set foot on the moon, was shot down in this aircraft on 3 September 1951. The 21-year-old had only made his combat debut five days earlier. Armstrong was flying an armed reconnaissance sortie over the primary transportation and storage facilities south of the village of Majon-ni, west of Wonsan, when his fighter was hit by ground fire as he made a low bombing run at about 350 mph. While trying to regain control, he collided with a telegraph pole at a height of about 20 ft, which sliced off about three feet of the Panther's right wing. Armstrong flew the aeroplane back to friendly territory, but due to the loss of the right aileron, ejection was his only safe option. He planned to eject over water and await rescue by US Navy helicopters, and therefore flew to an airfield near Pohang. However, he was blown back over land while still beneath his parachute, and a jeep driven by a roommate from flight school duly picked Armstrong up when he landed. Issued new to VF-52 at NAS San Diego in March 1951, BuNo 125122 had been transferred to VF-51 just prior to the unit embarking aboard CV-9 and heading to Korea in June of that year.

## 13

**F9F-2B BuNo 125096 of VF-837, USS *Antietam* (CV-36), February 1952**

This fighter was hit in the fuel tank by AAA whilst being flown by Lt(jg) R E Wilson on 4 February 1952. Although the Panther was severely damaged, Wilson managed to fly the jet almost all the way back to CV-36 before its engine finally flamed out. He then ditched in the Yellow Sea and was retrieved by a HO3S-1 helicopter. BuNo 125096 had been issued new to VF-837 in late April 1951, the Reserve-manned unit having been called to active duty on 1 February that same year. It lost two Panthers during an eight-month cruise aboard CV-36.

## 14

**F9F-2 BuNo 123073 of VF-52, USS *Boxer* (CVA-21), June 1953**

Originally built as an F9F-3 in 1949, this aircraft saw combat with VF-51 at the very start of the Korean War in the summer of 1950. Subsequently serving with VF-52 and then VF-112 during the first half of 1951, BuNo 123073 was converted into an F9F-2 by the O&R facility at NAS Alameda between September of that year and February 1952. Supplied to VF-23, the jet undertook its second combat cruise with the squadron, embarked in CV-9, between June and December 1952. Sent ashore to FASRON 11 in Japan at year-end, BuNo 123073 was transferred to VF-52 aboard CVA-21 as an attrition replacement in June 1953. *Boxer* had joined TF 77 for the fourth, and final, time during the Korean conflict at the very end of March 1953, and it would remain in-theatre beyond war's end. ATG-1 had, uniquely, three full-strength Panther squadrons under its control at various times during the cruise – on 30 June VF-111 was transferred from *Lake Champlain* to *Boxer*, remaining embarked until October. The war's final week proved to be incredibly intense for TF 77 as carrier operations were geared to preventing the Chinese from gaining further territory before the ceasefire. On some days ATG-1's pilots flew well over 100 sorties. *Boxer* finally stood down at 2200 hrs on 27 July when the ceasefire became effective. Having survived three combat cruises, BuNo 123073 was lost on 16 December 1954 when it crashed into the Pacific Ocean during a training flight from USS *Wasp* (CVA-18) while still serving with VF-52.

## 15

**F9F-2 BuNo 127173 of VF-111, USS *Valley Forge* (CV-45), May 1952**

During *Valley Forge*'s third combat cruise, from mid-October 1951 to early July 1952, the vessel had ATG-1 embarked with F9F-2 squadrons VF-52 and VF-111, each with 16 aircraft, as well as VC-61 Det H with three F9F-2Ps. In hazardous attacks on well-defended targets, VF-52 lost no fewer than eight jets, VF-111 had three Panthers destroyed and even VC-61 Det H lost a single F9F-2P. The carrier's records for the cruise mention the difficulty of spotting Panthers on the flightdeck due to the fact that only four refuelling stations could deliver fuel suitable for the Panthers' J42 engines. The problem was partially solved by closer coordination between the aircraft handling, maintenance and service officers. A survivor of this bloody cruise, BuNo 127173 was transferred to VMF-115 at Pohang (K-3) just prior to CV-45's departure from TF 77. The jet remained with the Marine Corps until it was shipped back to the O&R facility at NAS Alameda in April 1953. Transferred to ATU-201 at NAS Kingsville, Texas, six months later, the Panther was written off when it suffered a non-fatal accident during a training flight on 10 May 1954.

## 16

**F9F-2 BuNo 127219 of VF-24, USS *Boxer* (CV-21), May 1952**

Having seen action with F4U-4 Corsairs from *Boxer* between March and October 1951, VF-24 returned to the war zone, again embarked in CV-21, just four months later. This time the unit was equipped with 16 F9F-2s for its 22 Naval Aviators. The cruise began in early February 1952 – just in time for *Boxer* to participate in attacks intended to disrupt Chinese preparations for an early spring offensive. In an effort to prevent the latter, CVG-2 averaged more than 100 sorties per day, which meant that *Boxer* had to be replenished with fuel and munitions every five to seven days. Carrier air group records note that on several occasions F9Fs equipped with Mk 55 ordnance racks returned to CV-21 with hung-up 250-lb GP bombs. In most cases the weapon was dropped when the aircraft's tailhook was extended prior to landing. As none of the bombs had been armed they did not, therefore, explode. Accepted by the US Navy in July 1951 and assigned to VF-24 during the unit's transition from the F4U-4 to the F9F-2, BuNo 127219 was transferred to FASRON 11 in Japan when *Boxer* headed for home in September 1952. Three months later the jet was assigned to VMF-115 at Pohang (K-3). Returning to FASRON 11 in late May 1953, the Panther was supplied to VF-151 (embarked in *Boxer*) as an attrition replacement on 1 July. BuNo 127219 became the penultimate F9F lost during the Korean conflict when it crashed into the sea ahead of CVA-21 at the start of a CAP mission on 26 July. According to the ship's records the cause of the ditching was a 'cold' catapult shot. The jet's pilot, Ens Thomas F Ledford, was not recovered.

## 17

**F9F-2 BuNo 122585 of VF-23, USS *Essex* (CV-9), October 1952**

Another *Valley Forge*/CVG-5 early war veteran, this aircraft had served with VF-51 as an F9F-3 from February 1950 through to December of that year. It was then passed on to sister-squadron VF-52, who in turn transferred it to VF-112 in May 1951. Converted into an F9F-2 during the latter half of 1951, BuNo 122585 was assigned to VF-23 in February 1953. Embarked in *Essex* with the unit as part of ATG-2 from 16 June 1952, the fighter survived until hit hard by AAA on 17 October. Its pilot, Lt Cdr Maury F Yerger, had little option but to force-land in enemy territory. He was soon captured. In attacks on well-defended targets, VF-23 (and sister-squadron VF-821) ensured that only one run would be made, with approach altitudes varying between 10,000 ft and 20,000 ft. Coming out of the sun, pilots would employ dive angles of 35 to 40 degrees, usually with good results. VF-23 lost four Panthers during the tour, one of them being Yerger's. The worst period was 21–22 November, when it lost one aircraft on each day. In December alone seven Panthers sustained damage over the target, but they were able to return to *Essex*. Despite the high tempo of operations VF-23's maintenance personnel kept the Panther's in-service rate at 93 per cent. Indeed, most battle-damaged jets were operational again within 24 hours.

## 18

**F9F-5 BuNo 125459 of VF-781, USS *Oriskany* (CVA-34), November 1952**

Arriving off North Korea's east coast in late October 1952 aboard CVA-34, VF-781 was soon presented with an opportunity to give the F9F-5 its first taste of aerial combat. While flying CAP above TF 77 in BuNo 125459 on 18

November, Lt Royce Williams and a wingman were attacked from the 'ten o'clock' position by a strung out formation of four MiG-15s. 'As the four came toward us', said Lt Williams, 'and reached firing range, I turned hard left into them, spoiling the effectiveness of their run. I continued my wrapped-up turn and came on around for a tail shot at the last MiG. I commenced firing from 15 degrees off his tail. My first burst sent him into an uncontrolled spiral. Dave Rowlands followed this crippled MiG down to 8000 ft, where he left it smoking in a deep graveyard spiral. Later, gun camera film confirmed the kill of this MiG'. As Rowlands rejoined the flight from below, a MiG promptly made a head-on attack on him. The dogfight became a melee as three other MiGs joined the battle. To this time neither Panther had suffered a hit, but this soon changed when Williams' fighter (which he had been operating at 100 per cent engine power) was struck by a cannon shell that severed the rudder control and forced his hasty departure in a dive into clouds at a lower altitude. A short while later Lt(jg) John Middleton was vectored towards a descending MiG, and he opened fire at extreme range. Middleton saw the enemy pilot bail out and the MiG crash into the sea. All three pilots then returned safely to *Oriskany*. TF 77 had been operating just 90 miles from Vladivostok, and with radar tracking the aircraft as they approached from that direction, there was little doubt these were Soviet MiG-15s. VF-781 had successfully knocked down four of them. After removing everything of value from BuNo 125459, the deck crew heaved the broken carcass overboard.

## 19

### **F9F-5 BuNo 126034 of VF-781, USS *Oriskany* (CVA-34), November 1952**

This aircraft, flown by Lt(jg) Dave Rowlands, participated in the 18 November 1952 action that resulted in four Soviet MiG-15s being shot down by Lt Royce Williams, who was Rowlands' section leader. Delivered new to VF-781 in June 1952, the aircraft remained with the squadron until it was transferred to VMF-115 as an attrition replacement in late April 1953. Assigned to a series of FASRONs in early 1954 (the last of which was at NAS San Diego), the jet joined VMFT-20 at MCAS Cherry Point in July of that year. BuNo 126034 remained here until it was sent to co-located Marine Aircraft Repair Squadron 27 in May 1956. The fighter was then transferred to FASRON 51 at Naval Auxiliary Air Station Sanford, Florida, in April 1957. Here, the jet served as a utility aircraft with newly established heavy attack squadron VAH-11, equipped with the A3D Skywarrior. It was subsequently passed on to co-located VAH-7 in October 1957, before finally being retired to NAS Litchfield Park in October of the following year.

## 20

### **F9F-2B BuNo 125117 of VF-721, USS *Kearsarge* (CVA-33), December 1952**

Nicknamed *The Bad Penny* by its assigned pilot, Lt(jg) R J Peterson, this Panther contributed to the 566 sorties flown by aircraft from CVA-33's CVG-101 between 25 December 1952 and 4 January 1953. On Christmas Day alone the carrier air group's pilots flew 44 sorties despite bad weather. Led by Lt Cdr H C McClaugherty, VF-721 was already a battle-seasoned unit and, during this cruise, it mainly targeted trucks and trains plying the supply routes north of Wonsan. On most of these missions the heavily armed Panthers escorted the group's propeller-driven types. Delivered new to VF-23 in March 1951, BuNo 125117 deployed with the unit to Korea aboard CV-37 two

months later. It was transferred to VMF-311 at Pohang (K-3), via FASRONs 8 and 11, later that same year. Shipped back to California in November 1951, the aircraft spent six months with the O&R facility at NAS Alameda prior to being assigned to VF-781 at NAS Miramar in May 1952. The following month BuNo 125117 was transferred to VF-721 at NAS San Diego, and it deployed with the unit to Korea aboard CVA-33 in July. Subsequently flown by VF-53 in 1953-54, the aircraft was damaged beyond repair during a training flight in May 1955 while serving with the NAATC at NAS Kingsville.

## 21

### **F9F-2 BuNo 123460 of VF-71, USS *Bon Homme Richard* (CV-31), July 1952**

VF-71, part of CAG-7 embarked in CV-31, had an outstanding record during its time off the North Korean coast. The unit continued to maintain a high mission tempo even when poor winter weather arrived early during the final stages of its eight-month-long combat cruise. The Chinese took advantage of the conditions to prepare for an offensive, resulting in TF 77 frantically implementing so-called 'Cherokee strikes' from late November 1952 when the weather improved sufficiently for missions to be flown over land once again. VF-71 earned high marks for both coverage and effectiveness, despite the poor flying weather during this period. The squadron's Panther pilots were especially commended for their attacks on vehicles left exposed and damaged by night attacks. Assigned to Lt Cdr J S Hill, CO of VF-71 during its 1952-53 cruise, BuNo 123460 was christened '*PAPASAN*' by its pilot. Delivered new to VMF-311 in April 1950, this aircraft saw considerable combat with the unit in Korea through to November 1951. Following six months of refurbishment in the O&R facility at NAS Alameda, the jet joined VF-71 just prior to the unit's war cruise aboard CV-31, which commenced in May 1952. Transferred to VF-91 aboard *Philippine Sea* when the latter vessel replaced CV-31 in TF 77 seven months later, the aircraft was damaged beyond repair during a heavy landing aboard CVA-47 on 5 July 1953.

## 22

### **F9F-2 BuNo 123575 of VF-72, USS *Bon Homme Richard* (CV-31), November 1952**

Nicknamed *Big DICK* by its assigned pilot, Lt(jg) Richard 'Dick' Allmann, this aircraft had seen almost two years of fleet service with VF-21 and VF-61 prior to being assigned to VF-72 in May 1952. Following an action-packed combat deployment with the latter squadron, during which it lost three Panthers whilst flying from CV-31, BuNo 123575 remained in-theatre after it was transferred to FASRON 11 in Japan in December 1952. The jet was sent to VF-821 aboard *Boxer* as an attrition replacement in January 1953, and then joined VF-93, embarked in *Philippine Sea*, two months later. Returned to FASRON 11 in April, the fighter was shipped back to NAS Alameda for overhaul the following month. Assigned to VF-151 from December 1953, the jet was then relegated to training duties from April 1955 and eventually retired to NAS Litchfield Park in August 1956.

## 23

### **F9F-2 BuNo 123704 of VF-93, USS *Philippine Sea* (CVA-47), June 1953**

On 13 June 1953 CVG-9 set a new Korean War record for naval aircraft when it flew 160 sorties supporting so-called 'Cherokee strikes', which saw TF 77 aircraft attacking billeted troops and supply depots and providing CAS for UN forces holding positions along the eastern sectors of the frontline. A large

number of these sorties were undertaken by VF-93 (led by unit CO Lt Cdr W E Carver, whose aircraft is depicted here) and its sister-squadron VF-91, Panther pilots escorting Skyraiders striking supply depots near the Yalu River. BuNo 123704 was already a combat veteran prior to being flown into action by VF-93 from late January 1953, the fighter having sortied over Korea with VF-51 (aboard CV-9) from November 1951 through to February 1952, VF-111 (aboard CV-45) from March to May 1952 and VF-191 (CV-37) from August to October 1952. Following a well deserved overhaul at NAS Alameda after its return from CVA-47's final war cruise in August 1953, BuNo 123704 spent the rest of its career with training units until placed in storage at NAS Litchfield Park in October 1956.

## 24

### **F9F-2 BuNo 123585 of VF-91, USS *Philippine Sea* (CVA-47), June 1953**

This colourful jet, nicknamed *Rosie* by its assigned pilot, Lt(jg) W Spangenberg Jr, also participated in CVA-47's final combat cruise. Having been issued new to VF-191 in July 1950, the fighter subsequently joined VF-837 in June 1951 and then returned to VF-191 two months later. Following a lengthy overhaul at NAS Alameda, the aircraft was assigned to VF-91 in August 1952 and participated in CVG-9's TF 77 deployment aboard CVA-47. Returned to Alameda in October 1953, the veteran jet was then issued to the NAATC at NAS Chase Field in May 1954 and written off in a crash during a student training flight on 11 April 1956.

## 25

### **F9F-2B BuNo 123451 of VMF-311, Pohang (K-3), May 1952**

Delivered new to VMF-312 in June 1950, this aircraft was passed on to VMF-311 the following month. Flown by the latter unit for almost two years, it would see plenty of action from Pohang (K-3). The jet is depicted here as it appeared towards the end of its spell in Korea. The aircraft was credited with flying 445 missions (totalling 1002 combat hours) during its time with the 1st MAW. Once refurbished at NAS Alameda, the jet served with VF-63 and VF-653, before joining VF-151 in February 1953. The unit, as part of ATG-1, embarked in *Boxer* the following month and headed for Korea – BuNo 123451 subsequently flew 96 combat missions with VF-151. By war's end this particular Panther had dropped approximately 400,000 lbs of ordnance and worn out 16 guns while firing more than 100,000 rounds of 20 mm ammunition. Post-war, BuNo 123451 was employed as a fighter training with the NAATC at NAS Corpus Christi and Chase Field and with ATU-202 at Kingsville, prior to being sent to NAS Litchfield Park for storage in January 1957.

## 26

### **F9F-5 BuNo 126039 of VF-122, USS *Oriskany* (CVA-34), February 1953**

VF-783 'Minute Men' was the sister-squadron of VF-781 during *Oriskany's* 1952-53 cruise, and like the latter unit it gave up its Reserve status (to become VF-122) on 4 February 1953. F9F-5 BuNo 126039 was named *Foul Ball* by the squadron's Executive Officer, Lt Cdr Thomas Tavernetti, who was one of the US Navy's pioneer jet pilots. He had become only the 62nd Naval Aviator to fly a Bell P-59B Airacomet – the first American jet fighter – on 29 October 1945. When *Oriskany* left TF 77 in early May 1953, BuNo 126039 (which had been issued new to the unit in June 1952) was passed on to VMF-115 at Pohang (K-3). Eventually returned to the USA in March 1954, the fighter was

written off in a flying accident on 26 March 1955 whilst assigned to VMFT-20 at MCAS Cherry Point.

## 27

### **F9F-5 BuNo 126109 of VMF-311, Pohang (K-3), February 1953**

US Marine Corps groundcrewmembers at Suwon's K-13 airfield knew there was going to be trouble on 16 February 1953 when they noticed the crash, fire and rescue crews hastily manning their vehicles. It duly arrived when a midnight blue F9F Panther jet (BuNo 126109 of VMF-311) came in 'heavy' and very fast. Its sluggish movements, trailing smoke and streaming a 30-ft ribbon of fire, all indicated serious hazard. The pilot was obviously having difficulty controlling his aircraft, but he was too low to eject. His only option was to try to bring the crippled jet in for an emergency landing. An already tense situation became worse when an explosion rocked the aircraft as it approached the airstrip. The Panther made a wheels-up landing, skidding along the tarmac on its belly for almost a mile with sparks flying from it. The nose promptly burst into flames, threatening the cockpit. The pilot blew off his canopy, struggled out and limped away. The aircraft, which had only been in Korea since 11 January 1953, was a total wreck, but its pilot escaped with minor injuries. Later, the airmen at Suwon learned they had witnessed the dramatic escape of the most famous 'flying leatherneck' in Korea, none other than Ted Williams, a star professional baseball player serving as a US Marine Corps reservist. Williams completed his tour and returned to major league baseball, and he was inducted into the Baseball Hall of Fame following his retirement.

## 28

### **F9F-2 BuNo 127143 of VMF-115, Pohang (K-3), March 1953**

Assigned to Capt Rocky Demopoulos during 1952-53, this aircraft had previously seen combat with VF-837 during *Antietam's* sole war cruise from October 1951 through to March 1952. It was then transferred to VF-24, embarked in *Boxer*, and sent back into action. Offloaded in Japan when the vessel was replaced by *Kearsarge* in September 1952, BuNo 127143 was passed on to VMF-115 at Pohang (K-3). After 18 months of near-constant combat in the deadly skies of Korea, the jet was damaged beyond repair by AAA on 14 April 1953 and subsequently salvaged at Pohang (K-3).

## 29

### **F9F-4 BuNo 125164 of VMF-115, Pohang (K-3), March 1953**

Delivered new to VMF-115 in August 1951, this F9F-4 was sent to Korea with the unit in April of the following year. A veteran of countless missions, the jet was often flown by Lt Thomas H Davis III during the spring and early summer of 1953. The aircraft eventually returned to the USA in January 1954, being overhauled at NAS Alameda before being issued to VMF-312 six months later. Supplied to the Naval Air Reserve Training Unit in St Louis, Missouri, in February 1955, the fighter was written off in a flight mishap on 17 April that same year.

## 30

### **F9F-5P BuNo 126271 of VC-61 Det D, USS *Princeton* (CVA-37), April 1953**

Nicknamed *AWK*, this aircraft was one of three F9F-5Ps embarked in CVA-37 with VC-61 Det D as part of CVG-15 – it bore the name of Det CO, Lt Cdr G A White, beneath its

cockpit. The F9F-5P was a purpose-built reconnaissance version of the F9F-5, whereas F9F-2Ps had been modified from existing F9F-2 airframes. The camera bay in the nose of the F9F-5P lengthened the jet by some 12 inches in comparison with a standard F9F-5. VC-61 replaced its F9F-2Ps with 'Dash-5s' for the final war cruises of *Philippine Sea*, *Valley Forge* and *Princeton*. The experimental natural metal finish seen on this and many other late-war Panthers was subsequently abandoned when excessive corrosion afflicted the unpainted airframes. BuNo 126271 had been issued new to VC-61 in August 1952, and it remained with the unit until sent to the O&R facility at NAS San Diego in December 1953. The aircraft was then passed on to US Marine Corps reconnaissance unit VMJ-3 at MCAS Miami in July 1954, and it was written off in a crash on 14 July 1955 while serving with VMJ-4.

### 31

#### **F9F-5 BuNo 126652 of VF-153, USS *Princeton* (CVA-37), May 1953**

Appropriately christened *The Blue Tail Fly*, this aircraft was a unique combination of two different F9F-5s, both of which belonged to VF-153 embarked in *Princeton*. The story of its creation involves an F9F-5 in an experimental natural metal finish flown by Lt(jg) Richard C 'Stretch' Clinite. Hit by enemy anti-aircraft fire during a sortie in early May 1953, the aircraft's tail section was badly riddled by shrapnel but Clinite managed to get the Panther back to the carrier. In the meantime Ens William Wilds Jr limped back to CVA-37 in glossy sea blue Panther BuNo 126652 after the jet had suffered extensive flak damage to its wings and forward fuselage. Its rear section was intact, however. When the two airframes were mated to produce one complete aircraft the result was *The Blue Tail Fly*. It completed a further 12 missions in this configuration before being sent to NAF Atsugi for a rebuild. BuNo 126652 had been delivered new to VF-831 in September 1952, this unit becoming VF-153 on 4 February 1953. By then both the squadron and this aircraft were sailing west across the Pacific as part of CVG-15 embarked in CVA-37. Following its rebuild, the jet was issued to VF-63 embarked in USS *Yorktown* (CVA-10), which was assigned to TF 77 and operating in the Sea of Japan monitoring the recently signed ceasefire. The jet was then passed on to VMF-115 at Pohang (K-3) in September 1954, and it returned with the unit to MCAS El Toro in July 1955. Following service with other units at the California base (including VMF-311 and VMA-224) the fighter was placed in storage in NAS Litchfield Park in April 1958.

### 32

#### **F9F-5 BuNo 125644 of VF-111, USS *Lake Champlain* (CVA-39), July 1953**

Following 46 days aboard *Boxer*, VF-111, commanded by Cdr Arthur E Vickery, swapped places with F4U-4-equipped VF-44 to take advantage of *Lake Champlain's* newer and more powerful H-8 type catapults. The squadron's 16 F9F-5s started operations from the latter carrier on 30 June 1953. Being the sole Panther unit aboard, maintenance and serviceability was hampered by a lack of F9F-5 spares, and these problems were exacerbated by the deckcrews' unfamiliarity with the type, resulting in handling accidents and damage to aircraft. Obtaining spares from other carriers and the cannibalisation of downed aircraft allowed availability of the type to remain high, however. BuNo 125644 was delivered to the US Navy in January 1952 and was issued to VF-112 at NAS Miramar ten months later following a long period in storage. The fighter joined VF-111 in February 1953 and then embarked in CVA-21 with the rest of ATG-1 the following month for *Boxer's* third, and last, Korean War cruise. Switching to CVA-39 with VF-111 mid-deployment, it was transferred to FASRON 11 at NAF Atsugi in November 1953 when *Lake Champlain* returned home. Assigned to VMF-314 at Atsugi in July 1954, the aircraft transferred to MCAS El Toro with the unit in March 1955. Following a rebuild in the O&R facility at NAS Norfolk, Virginia, the jet spent more than two years with the NAATC at Kingsville, before retirement to NAS Litchfield Park in May 1958.

### 33

#### **F9F-2 BuNo 123583 of VF-151, USS *Boxer* (CVA-21), July 1953**

Delivered to the US Navy in July 1950, this aircraft briefly served with VF-191 at NAS Moffett Field in August-September of that year, before being transferred to FASRON 8 at NAS Alameda. It was assigned to VF-23 at Moffett Field in May 1951 and participated in the unit's first Korean War cruise as part of CVG-19X, embarked in CV-37. After a rebuild in the O&R facility at NAS Alameda, the aircraft was assigned to VF-653 at the same site in September 1952. By the time BuNo 123583 deployed with the unit to Korea as part of ATG-1, embarked in CVA-21, VF-653 had been re-designated VF-151. Transferred to FASRON 11 at Atsugi in July 1953, the jet was shipped back to the O&R at NAS Alameda five months later. The Panther was supplied to the NAATC at NAS Chase Field in May 1954 and subsequently written off during a student training flight on 7 October that same year.

## INDEX

References to illustrations are shown in **bold**. Plates are shown with page and caption locators in brackets.

Allmann, Lt(jg) Richard 'Dick' 93  
Amen, Lt Cdr William T 14, 14–15, 90  
*Antietam*, USS 32, 33, 33  
Armstrong, Ens Neil 30, 30, 82, 91  
Autrey, Capt Gene 80

*Bairoko*, USS 72  
*Bataan*, USS 76  
Beebe, Cdr Marshall U 32  
Bell, 1Lt Robert W 74, 75  
Belyakov, Capt 59  
Boeing B-29 Superfortress 26, 32

*Bon Homme Richard*, USS 24–25, 26, 27, 28, 28, 51, 52  
*Boxer*, USS 10, 21, 21, 22, 23, 48, 49, 49, 67–68, 69  
Brainard, Lt G S 33  
Brewer, Ens Lowell R 90  
*Bridges at Toko-ri*, *The* (film) 30, 31  
Briscoe, Vice Adm Robert P 59  
Brown, Ens Eldon 7  
Bruestle, Lt(jg) L K 90

Carver, Lt Cdr W E 94  
Chilton, Lt Robert 'Chili' 16  
Chinese People's Volunteer Army (CPVA) 11, 13, 18, 76, 85–86; AA batteries 18, 23, 33, 34, 47  
Clare, Ens George 52  
Clark, Vice Adm Joseph 'Jocko' 62

Clinite, Lt(jg) Richard 'Stretch' 66, 66, 67, 95  
Cogdell, Ens Jack 11–13, 17, 65  
Coles, Lt Col Thomas M 77

Davis III, Lt Thomas H 94  
Davis, Lt 84  
Demopoulos, Capt Rocky 81, 94  
Douglas AD Skyraider 23, 31–32, 62, 79  
Duby, John 16

Elwood, Lt Claire 56–57  
*Essex*, USS 25, 30, 53, 53–54, 54  
Ewen, Adm Edward 16

Ferenbaugh, Maj Gen Claude 75  
Finlay, Lt(jg) W A 70

flight preparations 28–29  
Fontana, Maj Gen Paul 73

Gates, Lt Cdr Chester 90  
Glenn, Maj John **82**, **83**  
Gortney, Capt William 'Bill' 7, 9–10  
Grachyov, Capt Mikhail 90  
Graham, Ens Herb **32**  
Grumman F9F Panther 61, 86; dive brakes 10, **86**;  
engine changes 74, **75**; engine compressor  
problems (F9F-4) 78; fuel pump problems 73;  
turbo jet controller problems 64  
F9F-2 15, 31, 72; BuNo 122585 **17**(41, 92);  
BuNo 123073 **14**(40, 92); BuNo 123418  
**52**; BuNo 123460 **21**(42, 93); BuNo 123575  
**22**(43, 93); BuNo 123583 **33**(46, 95); BuNo  
123585 **24**(43, 94); BuNo 123704 **23**(43,  
93–94); BuNo 125083 **81**; BuNo 125088  
**10**(39, 91); BuNo 125116 **78**; BuNo 125122  
**30**(39, 91); BuNo 127143 **28**(45, 94),  
**81**; BuNo 127149 **34**; BuNo 127173 **15**(40,  
92); BuNo 127174 **9**(38, 91); BuNo 127180  
**52**; BuNo 127184 **4**(37, 90); BuNo 127207  
**8**(38, 91); BuNo 127219 **16**(41, 92); USMC  
**73**, **75**, **76**, **78**, **79**, **80**, **84**, **85**, **86**; VF-23  
**27**, **28**; VF-24 **48**; VF-51 **30**, **32**; VF-52  
**47**, **69**; VF-71 **51**, **52**; VF-72 **52**; VF-111  
**47**; VF-112 **47**; VF-151 **69**; VF-191 **50**;  
VF-821 **53**  
F9F-2B **7**, **13**, **21**, **22**, **25**, **26**, **33**, **79**; BuNo  
123443 **8**; BuNo 123451 **25**(44, 94), **77**;  
BuNo 123464 **74**; BuNo 123497 **3**(36, 90);  
BuNo 123511 **2**(36, 89–90); BuNo 123633  
**6**(37, 90); BuNo 123643 **23**; BuNo 123655  
**4**, **24**; BuNo 123657 **20**, **5**(37, 90); BuNo  
123702 **11**(39, 91); BuNo 125096 **13**(40,  
92); BuNo 125117 **20**(42, 93)  
F9F-2P 17, 18, **19**, 19–20, **22**, **62**; BuNo  
123615 **7**(38, 90–91)  
F9F-3 **6**, **9**, **11**; BuNo 122574 **9**; BuNo 123071  
**1**(36, 89)  
F9F-4 **76**, **78**, **81**, **84**; BuNo 125164 **29**(45, 94)  
F9F-5 **56**, **58**, **60**, **61**, **61**, **62**, **69**, 69–70, **71**,  
**85**; BuNo 125459 **18**(41, 92–93), 56–58,  
**58**; BuNo 125644 **32**(46, 95); BuNo 126034  
**19**(42, 93), **56**; BuNo 126037 **70**; BuNo  
126039 **26**(44, 94); BuNo 126109 **27**(44,  
94), **82**; BuNo 126652 *The Blue Tail Fly*  
**31**(46, 95), **66**, 66–67, **67**  
F9F-5P **62**, 62–63, **64**; BuNo 126271 **30**(45,  
94–95)

*Helena*, USS 59  
Hill, Ens Allen 'Boot' 8–9, 15, 16  
Hill, Lt Cdr J S 93  
Hise, Maj Henry W 79–80, 83  
Holloman, Lt George 14, 90  
Hubka, Capt Frank J 76  
Hughes, Lt Robert 25

Irwin, Lt Col Darrell **77**

Jackson, Jr, Ens Edward 89–90

*Kearsarge*, USS **54**, 54  
Kinney, Lt Col John F 73  
Kramer, Lt Ken 30–32

*Lake Champlain*, USS 68, 69, **70**, 71  
Lamb, Lt Cdr William 15–16  
Ledford, Ens Thomas F 92  
*Leyte*, USS 10, 11, **13**, **13**, 16–17, 18, 65  
Livingston, 2Lt Odyc W **81**  
Lockheed F-80 Shooting Star 6  
Lovette, Capt **84**

MacBrien, Lt Joseph J, RCN **56**  
MacIntyre, Lt Col Neil R 72–73  
McDonnell F2H Banshee 25; F2H-2 70; F2H-2P 47  
Melsek, Lt(jg) Norb **4**, **24**  
Michener, James 30  
Middleton, Lt(jg) John 56–57, 93  
Mikoyan-Gurevich MiG-15 14–16, **57**, 57–58, 59,  
**74**, 75, 82–83  
missions: bridge attack 14, 30–32, **51**; 'Cherokee  
strikes' **51**, 62, 71, 93–94; flak suppression  
33–34, **50**, **53**, 53; hydroelectric plant attack  
50, 51; photo-reconnaissance 17, 20, 29,  
62–63, **64**  
*Missouri*, USS 17

National Security Agency 59  
Nelson, Lt W O 'Swede' **23**  
Nixon, Ens E A 62  
North American: F-51D Mustang **21**; F-86 Sabre  
59, 60, 86  
North Korean People's Army (NKPA) 10, 11

Operation *Strangle* 74  
*Oriskany*, USS 54, 55–56, 58

Pakhomkin, Lt 59  
Parker, Lt Robert 15–16  
Pepelaev, Lt Col Evgeniy **74**  
Peterson, Lt(jg) R J 93  
*Philippine Sea*, USS 7, 8, 9, 11, 16, 18, 24, **47**, 47,  
48, **60**, **62**, 62, 63  
Plog, Lt(jg) Leonard H 7, 89  
*Princeton*, USS 17, **27**, **27**, **28**, **50**, 50, 55, **62**, 63,  
**64**, 65, 66, **67**

Radkte, Ens Herman 49  
Ramsey, Lt Cdr John W 91  
Red Air Force, Air Defence Forces (VVS-PVO) 59;  
Fighter Air Regiment, 196th 75  
Ritchie, Capt **84**  
Rowlands, Lt(jg) David 56–57, 58, 93

*Samuel N Moore*, USS 67  
Sawyer, Maj James 'Buzz' **84**  
Schnitzer, Lt George 34–35, 64, 65, 70–71  
Spangenberg Jr, Lt(jg) W 94  
Steman, Maj Louis H 81–83

tactics 26–27, 30–32, 34, 55, 69, 77  
Tarshinov, Lt 59  
Task Force (TF) 77: 6–7, 8, 11, 22, 24, 26, 52,  
53, 59, 60, 63, 68–69, 70; RESCAP Doctrine  
60–61  
Tavernetti, Lt Cdr Thomas 94  
*Tingey*, USS **25**  
*Triumph*, HMS 6, 7, 8

US Air Force 6  
US Army: 7th Division 75  
US Marine Corps 31, 72  
MAG-33 76, 78, 79, 83, **85**  
Marine Air Wing, 1st 80, 86  
Marine divisions: 1st 74; 5th **79**; 7th 74  
squadrons: VMA-121 **79**; VMF-115 **28**,  
**29**(45, 94), 72, **76**, 76–78, **79**, 79–81, **80**,  
**81**, 83–84, **84**, 85, 86; VMF-311 **21**, **8**(38,  
91), **25**, **27**(44, 94), 72, **73**, 73–74, **74**, **75**,  
75–76, **77**, **78**, **78**, **79**, 79, 80, **81**, 81–83,  
**82**, **84**, 84–85, **85**, 86; VMJ-1 76  
US Navy 6, 72  
air task groups: ATG-1: 35, 47, 48, 67–68, **69**;  
ATG-2 53, 54  
carrier air groups: CVG-2 10, 21, 24, 49;  
CVG-3 10, 11, **13**, 15, 17; CVG-4 68, 69,

70, 71; CVG-5 6, 7, 9–10, 25, 26, 30, 32,  
61, 62; CVG-7 51–52; CVG-9 **62**, 62, 63;  
CVG-11 8, 9, 16, 47, 48; CVG-15 32–34,  
**33**, 63–64, 65–66; CVG-19 17, 18, 19, 20,  
21, 27, 50–51; CVG-19X **27**, **27**, **28**; CVG-  
101 (later CVG-14) **4**, 21–22, 23, 54, 55;  
CVG-102 24–25, 56, 59  
squadrons: VA-95 **62**; VA-115 15; VA-702 **23**;  
VC-3 Det G 28; VC-11 Det M **62**; VC-35  
Det G 28; VC-35 Det M **62**; VC-61 **62**;  
VC-61 Det 44: **70**; VC-61 Det A 49; VC-61  
Det C 48; VC-61 Det D **33**, **30**(45, 94–95),  
**62**, 63, **64**; VC-61 Det E 17, 19, 20, 27,  
73(38, 90–91), **50**, **62**; VC-61 Det F **19**, 21,  
**22**, 22, 23; VC-61 Det G 24, 25, 29; VC-61  
Det H 47; VC-61 Det M **62**; VC-61 Det N  
51; VF-11 54; VF-22 68; VF-23 **27**, **27**, **28**,  
**17**(41, 92), 53, **54**; VF-24 **16**(41, 92), **48**, **49**,  
49; VF-31 10–12, **13**, 13, 15, 17, **3**(36, 90),  
65; VF-44 68; VF-51 **6**, 6, 7, **9**, **11**, 29–32,  
**30**, **32**, **1**(36, 89), **12**(39, 91), **61**, **61**; VF-52  
6, 15–16, 35, **14**(40, 92), **47**, 47, 67, **69**,  
78; VF-53 **60**, **61**; VF-62 68; VF-71 **21**(42,  
93), **51**, 51, **52**, **52**; VF-72 **22**(43, 93), 51,  
**52**, 52; VF-91 **24**(43, 94), **62**, 62, 63; VF-93  
**23**(43, 93–94), **62**, 62; VF-94 **62**; VF-111 8,  
14–15, **35**, 35, **4**(37, 90), **9**(38, 91), **15**(40,  
92), **32**(46, 95), **47**, 47, 67, 68, **69**, 69, **70**,  
70, 71, 78; VF-112 **7**, **8**, 8–9, 15, 16, **2**(36,  
89–90), **47**, 47–48; VF-113 and VF-114  
15; VF-122 (formerly VF-783) **26**(44, 94);  
VF-151 **33**(46, 95), **67**, **69**; VF-153 (formerly  
VF-831) **31**(46, 95), **62**, 63, 64, 65–67, **66**,  
**67**, 70–71, **71**; VF-154 (formerly VF-837)  
**62**, 63, 64, 65–66; VF-172 25, 30, 32;  
VF-191 17, 18, 19, 20–21, **6**(37, 90), **50**,  
50–51; VF-194 47; VF-653 47; VF-721  
**4**, **20**, 21, **22**, **22**, **23**, 23, **24**, 24–25, **25**,  
**5**(37, 90), **20**(42, 93), **54**, 54, 55; VF-781  
(later VF-121) 24, 25, **26**, 27–28, **11**(39,  
91), **18**(41, 92–93), **19**(42, 93), **56**, 56–58,  
59; VF-783 (later VF-122) 56, 59; VF-821  
**53**, 53, **54**; VF-831 (later VF-153) **32**, **33**,  
33–35, **34**, **10**(39, 91), **63**; VF-837 (later  
VF-154) 32, **33**, 33–34, **13**(40, 92)

*Valley Forge*, USS **6**, 6, 7, 8, **9**, 11, 18, 21, 35, **47**,  
**61**, 61, 78

Vandalov, Capt 59  
Vought F4U Corsair: F4U-4 51, **62**; F4U-5P **62**

Walley, Maj **84**  
weapons  
bombs: 100-lb 21; 250-lb 21, 49, 51; 260-lb  
fragmentation 31, 78–80; 1000-lb **54**;  
racks for 64, 69–70, 85  
cannon, 20 mm 10, 23, 65  
land-based F9Fs **79**  
rockets: 2.75-in 'Mighty Mouse' 77; 5-in  
64–65; 5-in anti-tank aircraft (ATARs) **76**;  
5-in high-velocity aircraft (HVARs) 22, **51**,  
**78**; launchers for 23, 55; 'Tiny Tim' **78**

Weber, Ens Frederick 15–16  
Welch Jr, Cdr Frank **35**  
Weymouth, Lt Cdr Ralph **8**  
White, Lt Cdr G A 94–95  
Wilds Jr, Ens William A 67, 95  
Williams, Lt Royce 56–59, **57**, **58**, 92–93  
Williams, Capt Ted **82**, 94  
Wilson, Lt(jg) R E 92

Yeatman, Lt R P **51**  
Yerger, Lt Cdr Maury F 92  
Young, Lt(jg) Rollo **70**

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#### **Front Cover**

**Between March and October 1951 the F9F-2Bs of VF-721, flying with Carrier Air Group (CVG) 101 embarked in USS *Boxer* (CV-21), excelled in road and rail interdiction across North Korea. In this specially commissioned artwork by Gareth Hector, Lt(jg) Norb Melsek pulls up off a strafing run in his F9F-2B (BuNo 123655) after catching a convoy of Chinese trucks out in the open during the retreat of communist forces following the failure of their spring offensive.**

**During this period of intense action, both Panthers and F4U Corsairs from CVG-101 loitered over the frontlines on a daily basis in an effort to help UN ground forces harry communist troops as they fled north. Most pilots in VF-721 managed to fly more than 120 sorties each during the offensive, ranging far behind the fleeing enemy troops as they sought out road and rail targets. Usually, most enemy transport (road and rail) would only move under the cover of darkness, but the situation was so dire for the fleeing Chinese soldiers that the communists risked repatriating their forces during daylight hours. They paid a heavy price for their boldness, as an estimated 2200 enemy troops were killed by strafing runs, this figure being verified by advancing UN forces.**

**VF-721 records showed that its Panthers had fired 48,018 20 mm cannon rounds, 378 5-in High Velocity Aircraft Rockets and 574 6.5-in Anti-Tank Aircraft Rockets during this period, the unit also expending dozens of 250-lb general purpose bombs (Cover artwork by Gareth Hector)**

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